Draft Management Plan for McNabs & Lawlor Islands Provincial Park

Halifax Harbour, Nova Scotia

NOVA SCOTIA
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Information Series PKS 2002-1

DRAFT

PARK MANAGEMENT PLAN

MCNABS AND LAWLOR ISLANDS PROVINCIAL PARK

HALIFAX HARBOUR, NOVA SCOTIA

Information Series PKS 2002-1

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1.0 EXECUTIVE SUMMARY

McNabs and Lawlor Islands Provincial Park consists of two islands within Halifax Harbour. Together these islands embrace 460 hectares, of which 432 hectares is included within the park. The majority of the 28 hectares outside the park is owned by the federal government, with most administered by Parks Canada as part of Fort McNab National Historic Site of Canada. The islands include a diverse and complex mix of significant natural and cultural heritage values and also provide important opportunities for outdoor recreation and nature-based education.

The purpose of this management plan is to define a vision and management philosophy that will guide park management decisions for McNabs and Lawlor Islands Provincial Park. In addition, the plan identifies the actions necessary to support that vision and philosophy.

The park has adopted five principal management objectives. The first is to preserve and protect the islands' significant natural and cultural heritage elements and values. Secondly, the park will provide opportunities for a variety of high-quality outdoor recreation activities. Thirdly, the park will provide opportunities for exploration, education, and appreciation of the islands' heritage values through interpretation, information, and outdoor education programs. Fourthly, the park will play an important role in supporting local, regional, and provincial tourism efforts. Finally, basic services and facilities will be provided to enhance visitor enjoyment of the park.

Management priorities will be directed toward retaining and enhancing the islands' natural and cultural heritage. To that end, the park has been classed as a Natural Environment Park, with most of its lands included within an Environmental Protection Zone. Notwithstanding this commitment to the protection of heritage values, the Department of Natural Resources and its partners will provide opportunities for outdoor recreation and nature-based education that do not conflict with the management emphasis on protecting heritage values.

Park development will be limited to McNabs Island. The primary focus of development is on providing facilities and services that support day-use activities. The provision of limited camping opportunities is also considered. Park development will be minimized by using existing facilities wherever possible. New facilities will be located to minimize their impact on the island's heritage values, natural landscapes, and viewscapes. Park development will depend largely on the establishment of partnerships between individuals, community-based organizations, business, and government.

Garrison Pier will serve as the main public access to McNabs Island. Range Pier will be replaced, and the new facility will serve as a secondary entry point. The primary means of travel on the island will be by foot. Bicycles will be permitted, but will be restricted to designated trails. Visitor services nodes are proposed for Maugher Beach, Wreck Cove, and Ives Cove. Maugher Beach, located near Garrison Pier, will be the main day-use area. Facilities will include a visitor services building offering food services, washrooms, change rooms, and interpretation and information. A small picnic area will be developed nearby.

Limited development is proposed for Wreck Cove, including vault toilets, change rooms, and an interpretive kiosk. With construction of a new wharf, some additional development may be considered to accommodate the anticipated increase in use. Limited camping may also be permitted.

The Ives Cove area includes Fort Ives, the Department's service wharf, and a number of former homes. Fort Ives will be maintained and interpreted, and a small picnic area will be established there. The former Conrad and Matthew Lynch homes may be used as an outdoor education centre, subject to a suitable partnership agreement. A small campground is proposed south of the Conrad house near the Old Military Road.

Emphasis will be placed on interpreting and understanding the island's diverse natural and cultural heritage values. The interpretive and education program will focus on self-directed opportunities, including brochures, on-site interpretive panels, publications, and special-event programming. Some interpretation and education efforts will occur off-site, at locations such as McCormacks Beach Provincial Park and major mainland departure points for island ferry service.

Cultural heritage management efforts will focus primarily on Fort Ives and the Conrad, Matthew Lynch, and Jack Lynch homes. While limited management intervention may also occur at some additional sites, the majority of cultural heritage sites will not be actively managed except for public safety reasons. Natural heritage values, including flora, fauna, marine environments, and the ecological processes they support, will be maintained and, where possible, restored. The Department's Vegetation Management Guidelines will be used to assist in achieving vegetation objectives.

Maintaining ecological integrity is an important goal of the park management plan. To that end, the Department will undertake a variety of measures to minimize visitor impact. Implementation of park zoning, baseline data collection, visitor impact monitoring, and appropriate management techniques will be used to maintain ecological integrity.

Implementation of the park management plan is proposed over three phases. Phase I will address key public safety issues, ensure protection of park values, deliver basic facilities and services, and provide limited camping opportunities. The second phase will provide a higher level of facilities and services and visitor experiences, with a focus on interpretation, outdoor education, and day-use facilities. Phase III will focus on the delivery of a visitor services facility at Maugher Beach, the replacement of Range Pier, and the provision of additional camping opportunities.

Successful implementation of the phased development approach will depend largely on formal partnership agreements and availability of resources.

2.0 BACKGROUND

McNabs and Lawlor islands are situated in the mouth of Halifax Harbour (Figure 1). The larger of the two, McNabs Island is approximately 5 kilometres long and 1.5 kilometres at its widest and comprises 402 hectares. Nearby Lawlor Island is almost 2 kilometres long and 600 metres at its widest and is approximately 58 hectares in size. The islands are easily accessible by boat.

Suggestions that McNabs and Lawlor islands be protected as parkland date from at least the mid-1960s. In 1974, the Province of Nova Scotia acquired most of the northern half of McNabs Island and in the following year designated McNabs and Lawlor islands as a regional park under the Halifax-Dartmouth Regional Development Plan. The intent of the regional park designation was "to protect areas of unique natural significance against adverse effects and to reserve sufficient open space for recreational purposes". In 1983, the Province assigned responsibility for the acquisition, management, and development of the islands as parkland to the Nova Scotia Department of Lands and Forests (now Natural Resources) through the Provincial Parks Program.

In 1985, the Department of Lands and Forests completed a preliminary management concept for McNabs, Lawlor, and nearby Devils islands. The concept was intended to provide a focus for discussion, review, and decisions regarding the future management and development of the islands. In addition, the concept was to provide a rationale and basic direction for management decisions affecting the islands until a park management plan could be completed. In 1988, following a policy review of Nova Scotia's provincial park system, the Province identified McNabs, Lawlor, and Devils islands as one of four priority areas for park development. In 1991, a planned public consultation process that was to lead to the development of a provincial park on the three islands was deferred when McNabs Island was recommended as the site of a proposed regional sewage treatment plant for the Halifax metropolitan area. It was subsequently determined, however, that construction of a regional sewage treatment plant on McNabs Island was not feasible due to the high costs involved.

The federal government involvement on McNabs and Lawlor islands dates back to 1906 when it took over lands formerly owned by the British War Department. Responsibility for most of these lands was assigned to the Department of National Defence (DND). Parks Canada's specific interest in these federal lands resulted from a 1965 Historic Sites and Monument Board recommendation that was based on a review of military installations on McNabs Island. At that time Fort McNab was designated of national historic significance. Shortly thereafter, most federal lands on McNabs and Lawlor islands were transferred to Parks Canada.

In 1985, as part of ongoing federal-provincial discussions on the future management of the islands, Parks Canada completed a boundary delineation study for Fort McNab National Historic Site of Canada to identify what lands were required for the protection and management of the fort. In 1992, Parks Canada completed a management plan for the Halifax Defence Complex in which the proposed boundaries for Fort McNab National Historic Site of Canada were confirmed. Lands identified as surplus to Parks Canada's needs were to be transferred to the Province for park purposes. In 1995, decisions regarding the land transfer were deferred pending completion of a land use strategy for McNabs and Lawlor islands by the Department of Natural Resources and Parks Canada.

In October 1995, a joint public consultation process was initiated by the provincial and federal governments to assist in preparing a land-use strategy for McNabs and Lawlor islands. Devils Island was not considered in this process as the majority of the island is privately owned. Information, in the form of a preliminary park management concept, was widely circulated for public review and comment. Open houses in Eastern Passage, Dartmouth, and Halifax were attended by approximately 200 people, and many others were provided with background information on options for the future management of McNabs and Lawlor islands as parkland.

Formal public hearings in the same communities were completed in November 1995, providing interested parties with opportunities to make oral and/or written presentations regarding future management of the islands as parkland. In July 1996, a summary report by Evelyn Meltzer, the independent chair of the formal public hearings, was released by the Department of Natural Resources and Parks Canada (Parks Canada and Nova Scotia Department of Natural Resources, 1996). A draft land use strategy for McNabs and Lawlor islands, which reflected public comments received during the public open houses and formal hearings, was also prepared.

In December 1998, the provincial and federal governments formally adopted the Land Use Strategy for McNabs and Lawlor Islands (Parks Canada and Nova Scotia Department of Natural Resources, 1998). At the same time, the federal government committed to transfer the majority of Parks Canada's lands on McNabs and Lawlor Islands to the Province. This transfer was completed in October, 2000.

The transfer of these federal lands included several provisions that govern their future management and use. The surplus federal land was transferred to the Province expressly for provincial park purposes and if it ceased to be used for that purpose the land would revert to the federal government. The Province also agreed to preserve and protect the rifle muzzle loading (RML) battery and casements at Fort Ives, a classified heritage building as determined by the Federal Heritage Building Review Office. In return, the federal government agreed to provide professional and technical expertise in support of this ongoing obligation.

In early 2000, the Minister of Natural Resources appointed the McNabs and Lawlor Islands Provincial Park Advisory Committee to assist the Department in preparing a park management plan for the islands. The committee, representing a variety of community interest groups, met on a regular basis from July 2000, through the completion of the planning process.

The park includes most lands on McNabs Island and all but the navigational aid site on Lawlor Island (Figure 2). The majority of lands on McNabs Island not within the provincial park are owned by the federal government and include Fort McNab National Historic Site of Canada (Parks Canada, 14 ha), Fort Hugonin (DND, 8 ha) and 2 hectares at the western end of Maugher Beach that includes the lighthouse (Coast Guard). The Fort Hugonin property has been declared surplus by DND, and an environmental assessment of the site has been completed. Preliminary discussions have been held with DND regarding the transfer of this property to the Province. In addition, there are 3 hectares of privately owned lands on the island.

On Lawlor Island, the federal government owns approximately 0.3 hectares at the eastern-most end of the spit opposite McCormacks Beach Provincial Park.

Since 1974, the Province has spent approximately $2 million on land acquisition and management on McNabs Island. This budget includes the acquisition of several key properties, staffing, maintenance of existing facilities, public safety, the provision of limited new facilities, park planning, and public consultations. Parks Canada has also committed significant funding over the years in support of its ongoing management responsibilities on the islands.

Historic Land Uses

McNabs Island has experienced fairly extensive development and use over the years; however, much of the island today is in a relatively natural state. The Mi'kmaq were the island's first inhabitants, establishing seasonal camps there as early as 350 AD. A shell midden at the south end of the island is one of the few surviving records of this early usage.

By the 1690s, French fishermen were using Isle de Chibouqutou, as McNabs Island was then known, as the location of a seasonal fishing outpost. In 1711, a major French settlement was planned for the island. However, after mainland Nova Scotia was lost to England under terms of the Treaty of Utrecht in 1713, the settlement was established at Louisbourg instead. Shortly after the founding of Halifax in 1749, some harvesting of the island's forests occurred, and a number of small tenant farms were established on the island, which was then called Cornwallis Island in honour of Governor Cornwallis, the founder of Halifax.

In 1782, Cornwallis Island was purchased by Peter McNab, a prominent Halifax merchant, who built a summer home on the island and began to settle a number of tenant farmers there. By the early 19th century, as much as half the island may have been cleared for agriculture, with up to 50 residents living there. Much of the cleared land was used for grazing livestock. The McNab family cemetery is located in what is now Fort McNab National Historic Site of Canada.

In 1828 a martello tower was completed at the tip of Maugher Beach. The Imperial Government began purchasing other land on the island in the 1860s, and the island soon began to play an increasingly important role in the defence of Halifax. Work commenced on Fort Ives in 1865, Fort McNab in 1888, and Fort Hugonin in 1899. Strawberry Battery was completed in 1940 to replace Fort Hugonin. Extensive areas around the fortifications were cleared for security reasons and to provide wide, seaward vistas and firing lines for the coastal artillery. Two rifle ranges were also constructed near the south end of the island.

In 1869, a Pleasure Ground was established on McNabs Island and quickly became one of the most popular recreational attractions in the Halifax area. The pre-eminence of McNabs Island as a recreational attraction continued until World War I when wartime restrictions greatly limited public access to the island. The growing popularity of the automobile following the war and the closure of the island's last midway show in the 1920s further diminished public use of McNabs Island for recreation.

During World War II, the island's military fortifications and associated facilities were significantly upgraded and expanded. Following the war, the fortifications served a much-diminished role, and many of the recently constructed facilities were removed. Beginning in the

mid-1950s, the federal government began to declare the fortifications on McNabs Island surplus to Canada's military needs. Responsibility for all of the military installations except Fort Hugonin was later transferred from the Department of National Defence to Parks Canada.

Lawlor Island has also been extensively developed over the years. It was used primarily for agricultural purposes until 1868, when a quarantine hospital was established at the north end of the island. By 1938, the quarantine station was no longer needed; however the island was used by the federal government as a medical facility during the Second World War. Shortly after the war ended the facility was declared surplus. Today only the foundations and a few gravestones remain as evidence of the once-busy quarantine and medical facility.

The proximity of the islands to the mainland has resulted in a number of development proposals being put forth over the years, including large-scale residential and industrial development and, more recently, construction of a regional sewage treatment plant. In addition, the islands' significant natural and cultural heritage values and opportunities for a range of outdoor recreation activities have encouraged a number of proposals to manage and develop the islands for nature education, ecotourism, and outdoor recreation.

A more detailed historical account of McNabs and Lawlor islands may be found in *Discover McNabs Island* (Friends of McNabs Island Society, 1995).

Contemporary Land Uses

Today McNabs Island still displays many elements of its rich history. Of the island's military structures, Fort Ives appears to be in the best condition, having recently undergone significant stabilization work. In many respects the fort appears little changed from its early years. Fort McNab National Historic Site of Canada occupies a commanding location at the southern end of the island, overlooking the harbour entrance. This site is managed by Parks Canada and will continue to serve as an important component of the Halifax Defence Complex, which also includes Georges Island, the Citadel, York Redoubt, and the Prince of Wales Tower. The future management and use of Fort McNab is subject to a separate planning process by Parks Canada. The future use of Strawberry Battery and Fort Hugonin, the latter owned by the Department of National Defence (DND), will require additional study and review.

Garrison Pier is the main public access point to McNabs Island. It was recently acquired by the Department of Natural Resources, and extensive repairs were completed in 2002. Range Pier, in Wreck (Back) Cove, is in poor condition, and public access and use are not supported. Suitable public access at Wreck Cove is viewed as important, but further studies will be required to determine the most appropriate means of providing that access. The Department of Natural Resources maintains a small wharf at Ives Cove for park management purposes. The wharf is not suitable for public use.

Several old trails provide access to many areas of McNabs Island. Garrison Road, Forsythe Street, and the Old Military Road form the main north–south transportation route linking Fort Ives, Garrison Pier, Fort McNab, and Wreck Cove. The Friends of McNabs Island Society

maintain many of the trails through formal agreement with the Department. Numerous foundations and clearings are also scattered about the island, evidence of earlier uses.

A number of pit toilets provided by the Department of Natural Resources are located around the island for public use and are maintained by the Friends of McNabs Island Society. McNabs Cove Beach and Wreck Cove Beach are extensively used for a variety of recreational pursuits, and several sites around the island are popular for camping.

The Department also maintains several former residences and other buildings on McNabs Island, including the Conrad house, the Matthew Lynch house, the Jack Lynch house, and the Tea House. The Conrad house is the largest of these building and has undergone extensive renovations since being acquired by the Province. It is currently used on an infrequent basis by groups conducting tours of the island. Some maintenance work has been done on the Matthew Lynch house over the years, and like the Conrad house, it is used from time to time by groups visiting the island. The Jack Lynch house currently serves as a full-time residence for the Department's caretaker as well as a park office and operations base. Several small cottages were acquired by the Department in 1974 when it purchased a major portion of the island. All have since been removed due to their poor condition and the cost of maintaining them.

The Tea House was built on leased Crown land by a private entrepreneur in the 1980s as a rustic restaurant and information centre. When the business ceased in 1992, the building was acquired by Natural Resources. It has not operated since that time.

Major features of Lawlor Island now include the ruins of the former hospital, a small cemetery, and several formerly cleared areas, which are at various stages of reverting to forest cover. Lawlor Island receives relatively few visitors annually. There is no wharf or formal access point, and no facilities or services are provided.

Regional Relationships

Prominently situated in the midst of Atlantic Canada's largest metropolitan area, which is one of the region's most significant tourism destinations, McNabs and Lawlor Islands Provincial Park has the potential to become a major attraction in its own right.

The park is located on the western boundary of the Eastern Shore Beaches landscape, one of 80 natural landscapes identified in Nova Scotia. As part of the planning process for Nova Scotia's Protected Areas System Plan, the islands were identified as providing good representation of the inshore drumlin islands that are found in this landscape dominated by beaches, salt marsh, headlands, and islands. Nearby Cole Harbour-Lawrencetown Coastal Heritage Provincial Park is also located within this landscape. Additional parks and protected areas situated nearby include Long Lake Provincial Park, Crystal Crescent (Pennant Point) Provincial Park, McCormacks Beach Provincial Park, West Dover Provincial Park Reserve, Terence Bay Wilderness Area, and the Waverley – Salmon River – Long Lake Wilderness Area.

McNabs and Lawlor Islands Provincial Park, which includes Fort Ives and Strawberry Battery, has a direct relationship with several nearby National Historic Sites, including Fort McNab, the Halifax Citadel, York Redoubt, Georges Island, and the Prince of Wales Tower. In particular, the anticipated opening of Georges Island National Historic Site of Canada will potentially offer significant complementary opportunities in terms of visitor access, interpretation, and marketing and promotion. The possible acquisition of Fort Hugonin by the Province and its subsequent inclusion in the park will further enhance interpretive opportunities. The federal government will develop Fort McNab National Historic Site of Canada as the provision of park facilities and services occurs at McNabs and Lawlor Islands Provincial Park.

McNabs and Lawlor Islands Provincial Park also complements efforts by a number of community development agencies to enhance the tourism appeal of the greater Halifax metropolitan area. These development efforts include strengthening downtown and waterfront business districts, Pier 21, Historic Properties, Halifax Harbour, Fisherman's Cove, and Purcells Cove.

Thus, in combination with other adjoining provincial parks and protected areas, several National Historic Sites, and other public- and private-sector developments, the park will play an important role in the future of the province. Together they will provide protection of significant natural and cultural heritage, high-quality outdoor recreational opportunities, and economic benefits through enhanced tourism.

Park User Groups

McNabs and Lawlor Islands Provincial Park has the potential to provide high-quality opportunities for outdoor education, recreation, and tourism to a wide range of local and out-of-province user groups. Park visitors will include users interested in natural and cultural heritage, outdoor recreation, and nature-based tourism and may include day users, campers, individuals, organized groups, and special interest groups. The park's primary focus will be on day users who will be attracted by the range of natural and cultural heritage values, self-directed interpretive programs, and a variety of outdoor recreational opportunities including biking, hiking, beach activities, bird watching, and nature appreciation. A limited number of camping opportunities may also be provided.

It is anticipated that park visitors will be drawn largely from the local area, although other Nova Scotians and out-of-province visitors will also be significant users.

3.0 VISION

The foundation of this park management plan rests on the park vision, a brief statement that presents the broad long-term direction for the park. This vision describes the park management philosophy and what the park will be like in the future.

Vision

McNabs and Lawlor Islands Provincial Park will ensure the long-term preservation of the islands' natural and cultural heritage values for the benefit of present and future generations. These benefits include the preservation and interpretation of the islands' heritage values and features, the provision of opportunities for healthy outdoor recreation in a natural setting, and the provision of opportunities for peace and solitude in the heart of a busy urban setting. These benefits are achieved through the active commitment of concerned citizens, community-based organizations, business, and government.

Purpose

The purpose of McNabs and Lawlor Islands Provincial Park is

- to preserve and enhance natural and cultural heritage values contained within a drumlin island system situated in Halifax Harbour
- to provide opportunities for outdoor recreation on McNabs Island that are compatible with the over-riding emphasis on preservation and protection
- to enhance public understanding and appreciation of the islands, including their natural and cultural heritage
- to provide for public access to McNabs Island for the purpose of education, enjoyment, and scientific research and for restricted access to Lawlor Island for scientific research;
- to complement and enhance local and regional tourism attractions

Significance

The park derives its primary significance from the following:

- it consists of two islands composed of 460 hectares of land in a relatively natural condition, which contain historic sites, open spaces, wildlife habitats, and 22 kilometres of undeveloped shoreline, all within Halifax Harbour
- it provides opportunities for land- and water-based education, outdoor recreation, and tourism within Atlantic Canada's largest urban area

Contributing to the significance of the park are

- archaeological resources from early aboriginal occupation of McNabs Island some 1,650 years before the present
- a number of other historic sites and landscapes resulting from over 250 years of European settlement and use
- the presence of Fort McNab National Historic Site of Canada and several other fortifications on McNabs Island
- a diverse range of natural communities,
- one of the highest concentrations of nesting great blue heron and osprey in eastern North America,
- the proximity of several other complementary attractions, including Georges Island National Historic Site of Canada, Fisherman's Cove, Pier 21, and the Halifax waterfront.

4.0 PARK VALUES

Climate

McNabs and Lawlor islands are situated within a maritime-temperate climatic zone, strongly influenced by proximity to the Atlantic Ocean. The average annual temperature is 6.5°C and the mean July temperature is 17.5°C. The islands receive, on average, 209 hours of sunshine monthly between May and September, and 129 hours from October to April. Average precipitation for May to September is 100 millimetres, compared with 124 millimetres for the balance of the year. Average annual snowfall is 190 centimetres, with accumulations varying greatly from year to year.

Natural Heritage

Natural heritage values include natural features and processes that create the bio-physical and aesthetic setting that gives the islands their underlying character and value.

Geology and Soils

In terms of bedrock geology, McNabs and Lawlor islands are underlain by rocks of the Meguma Group of which the 400-million-year-old Halifax slate formation is predominant. The central portion of McNabs Island is underlain by the older Goldenville quartzite. Only a few minor surface exposures of bedrock are found, and these are limited to McNabs Island.

McNabs Island essentially comprises a complex of drumlins oriented roughly from northwest to southeast. These drumlins provide a gently to steeply rolling topography with several small waterways or depressional areas found between the drumlins. Lawlor Island contains a single drumlin. There are no significant exposures of surface water on Lawlor Island. Elevations range from sea level to 48 metres on McNabs Island and 27 metres on Lawlor Island.

The drumlins are formed from glacial deposits – reddish-brown till derived from shale, sandstone, and mudstone of the Carboniferous age. Natural coastal processes combine to constantly reshape the islands. On McNabs Island the glacial till is actively eroding at several locations where wave action is cutting steep banks in exposed drumlin material. On Lawlor Island erosion is occurring primarily at the exposed southern end of the island. In general, the highest rates of erosion occur along beaches facing the Atlantic Ocean.

Human activity has also helped to shape McNabs Island. Large-scale removal of rock from cobble beaches at the southern end of the island has accelerated erosion, especially of Little Thrumcap. A causeway and road constructed to provide access to the lighthouse have prevented the natural flushing of McNabs Cove, enabling Maugher Beach to develop and McNabs Cove to become a freshwater pond.

Soils on the islands are classed as the Wolfville series and consist mainly of sandy clay loam, but vary from gravelly clay loam to loam (Canada Department of Agriculture and Nova Scotia

Department of Agriculture and Marketing, 1963). These soils are typically acidic and well drained, although groundwater occurs close to or at the surface in low areas. Several small areas of soil are mapped in the Coastal Beach series. Formed by wave action, these deposits vary in texture from fine sand to coarse gravel. On McNabs Island this soil series is often a heterogeneous cobble, mostly occurring at the southern end of the island, at the western end of Maugher Beach, the barrier beach at Green Hill Cove, on Thrumcap Hook, and on the isthmus connecting Big Thrumcap with the rest of the island. Soils rich in sand are found primarily at Maugher Beach and Wreck Cove Beach. On Lawlor Island, a cobble beach is found on the western shore, opposite Range Pier. A sand beach and spit have formed on the island's eastern shore, opposite McCormacks Beach Provincial Park.

Flora

The *Forest Classification of the Maritime Provinces* (Loucks, 1962) places McNabs and Lawlor islands within the Spruce-Fir Coast Zone, Atlantic Shore Ecoregion, Eastern Shore District. The Spruce-Fir Coast Zone occurs along the coast of Nova Scotia and develops under climatic conditions of late springs, cool summers, frequent fog, strong winds, and generally poorer soils. White spruce, red spruce, black spruce, and balsam fir are the dominant tree species of mature stands, with red maple and yellow and white birch also common.

The Eastern Shore District (Mahone Bay to Cape Breton Island) of the Atlantic Shore Ecoregion includes McNabs and Lawlor islands. Here white spruce is the dominant tree species due to its tolerance to salt spray and constant wind. Further inland, black spruce and, in certain locales, balsam fir share dominance with white spruce.

In terms of landscape classification, McNabs and Lawlor Islands Provincial Park is located at the western extremity of the Eastern Shore Beaches Landscape (DNR, 1994). Stretching along the Atlantic coastline of Nova Scotia from Halifax Harbour eastward to Ship Harbour, this landscape is characterized by a lowland coast of resistant rock types covered with varying thicknesses of glacial drift. A post-glacial rise in sea level has produced a complex shoreline of eroding headlands, major inlets, embayments, islands, offshore reefs, and major beach-dune systems.

The vegetation of the Eastern Shore Beaches landscape is characterized by Acadian mixwood and Maritime boreal forests. The major terrestrial ecosystem types found within this landscape include well to imperfectly drained red, black, and white spruce-balsam fir undulating terrain and well-drained tolerant hardwood-red spruce drumlins. There are also several minor terrestrial ecosystems types. Common coastal ecosystems include sandy beaches, cobble beaches, rock cliffs, sand dunes, salt marshes, and coastal islands. The islands also possess numerous distinct coastal, unforested and forested ecosites, each supporting a particular flora and fauna of interest. These ecosites include salt marsh, eroding coastal headlands, regenerating open fields, and climax and successional forest types.

McNabs and Lawlor islands were identified as being representative of several ecosystems, features, and elements of this landscape (DNR, 1994).

McNabs Island

McNabs Island is dominated by several well-drained tolerant hardwood (American beech, sugar maple, yellow birch) drumlin ecosystems located in the central and northern parts of the island and the well- to imperfectly drained red spruce-dominated undulating terrain ecosystems. The drumlin ecosystem supports a mosaic of forest types dominated by climatic climax species – tolerant hardwoods and red spruce, with varying amounts of the early successional species white spruce, balsam fir, white birch, red maple, and aspens. As succession proceeds, the climax species will become even more dominant. The lower slopes of the drumlins that immediately border the coastline support a salt- and wind-tolerant white spruce/white birch (*Betula cordifolia* and *Betula papyrifera*) forest type.

Low areas between the drumlin ecosystems, and the southern part of the island, support the well- to imperfectly drained undulating terrain ecosystem. This ecosystem type is dominated by the climatic climax red spruce, with varying amounts of early successional coniferous and deciduous tree species, including balsam fir, black spruce, white spruce and red maple. Again, a white spruce/white birch forest band extends along the immediate coastline of this ecosystem type.

The islands' vegetation has been heavily modified in a number of ways by the last 250 years of human use. All of Lawlor Island and most of McNabs Island were cleared at one time for agriculture, military uses, or forest harvesting. Two predominant stages of early successional forest are evident on the islands as these cleared areas revert to forest. The usual successional forest on old fields (most of Lawlor and large areas of McNabs) is dominated by white spruce. The second, and on McNabs Island more common, is dominated by white birch, which originates more on disturbed mineral soils. Both species are salt tolerant and generally wind firm.

A number of previously cleared areas on McNabs Island are regenerating naturally, and as a result early successional intolerant hardwoods are found in either small pure stands or, more commonly, forming mixed wood stands with the conifers. White spruce also prevails on formerly cultivated lands.

A number of non-native plant species have also been introduced to McNabs and Lawlor Islands by European settlers. These introduced species are especially apparent on McNabs Island around the former Hugonin-Perrin estate, which includes the present site of the Tea Room. It is thought that Frederick Perrin established an extensive English garden sometime after he acquired the property in 1885. A 1966 survey of the garden indicated that

> the Perrin estate, uncultivated since 1930, contains the relics of a once beautiful English garden. Amid tall grasses bloom lilies, lupines, roses and bugle. Hedges of common barberry and English hawthorn surround the garden. Large trees of Scotch elm, linden and horse chestnut line the edge of the property. Hemlock, larch and white pine line the roadway and black locust, lilac, Japanese maple, copper beech and Japanese knotweed occur around the old foundation (Nova Scotia Museum, 1966).

Much of these early plantings are still present. A row of elms marks the base of a crescent-shaped slope below the Tea House. At the top of the slope runs a hedge of English hawthorn. Along the back of this level terrace is another hedge of common barberry. A pair of large Japanese maples are set out from the front corners of the former Hugonin-Perrin home. A copper beech sits in the centre of this upper terrace. For at least the past decade this beech has been in poor condition. Three horse chestnuts line the south side of the lawn in front of the ruins of the Hugonin-Perrin house. The lawn itself is an open area with a few lilacs at the bottom of the slope. The presence of *Rosa spp.* suggests there once may have been an extensive planting of roses. Plantings on the north side of the lawn include several false acacia, a large red oak, and a white birch. Virginia creeper forms a dense tangle in this area.

Four large basswood remain along the lower edge of an open field behind the foundation of the former Hugonin-Perrin home. Two more basswood and three horse chestnuts also remain from what was once a continuous row of trees along this same field.

Other notable early plantings are the rows of basswood in front of the Matthew Lynch house. These stately trees were planted in the mid-19th century at a time when the original Peter McNab III home stood on this site.

Although no rare or endangered plant species are known from McNabs Island, there are several vegetation communities of interest. These include climax hardwood stands of sugar maple, yellow birch, and beech, several almost pure stands of beech, which show little or no sign of canker, potential old-growth red spruce stands, and the variety of introduced species associated with the Hugonin-Perrin estate.

Lawlor Island

Lawlor Island is dominated by mixed wood stands of white spruce, red maple, and white and yellow birch. Relatively high levels of plant diversity are found in the mixed wood forest, cobble shore, eroding cliff face and old-field habitats. No rare or endangered plant species are known from Lawlor Island.

Fauna

Birds are excellent indicators of the variety and conditions of habitats. In total, 206 species have been sighted on and around McNabs and Lawlor Islands Provincial Park, including 82 species for which there is evidence of breeding. Most notable of the islands' bird life is the nesting of great blue heron and osprey, the latter representing one of the highest concentrations in eastern North America.

The variety of habitats on McNabs Island and its proximity to the Atlantic coast contribute to the rich avifauna there. As well as being an excellent place for bird-watching in itself, McNabs Island (and neighbouring Lawlor Island) also provides nesting and roosting opportunities for birds seen in Halifax and Dartmouth parks.

Several rare bird species have been noted on McNabs Island. Most of these were outside their normal range and are not rare where they normally occur (e.g., ivory gull, southern herons, whip-poor-will). Several other endangered species sighted on McNabs Island were either vagrants with one sighting each (loggerhead shrike, Coopers hawk) or such widely ranging residents or migrants (harlequin duck, peregrine falcon, and roseate tern) that their occurrence on the island is probably not important for maintenance of their populations.

The piping plover is the only endangered species that may have bred on the island. During the 1991 breeding season, piping plover were found several times on beaches at the southern end of the island and were classed as probable breeders (Willison et al, 1996a). In a 1996 survey, no piping plover were reported from McNabs Island. Despite a lack of conclusive proof that piping plover have bred on McNabs Island in recent years, the bird's presence on the island and the existence of suitable breeding habitat offer hope that breeding may occur.

A 1991 aerial survey identified 11 occupied osprey nests on McNabs Island, most around Timmonds Hill. In the past, great blue heron have bred in several locations on McNabs Island. Over the years, however, they appear to have relocated to Lawlor Island. The relocation of this species from areas of greater to areas of lesser disturbance, combined with the extreme sensitivity of this species to human disturbance, suggests that the colony may have relocated due to human disturbance (Willison et al, 1996).

A 1996 breeding bird survey identified 84 bird species on Lawlor Island and in the surrounding waters (Willison, 1996b). No threatened, endangered, or otherwise rare species were sighted during this survey. Lawlor Island is regionally important, however, for its nesting colonies of great blue heron and osprey. In 1996 there were at least 14 active great blue heron nests and 10 active osprey nests.

The high density of breeding herons and osprey on McNabs and Lawlor Islands, so close to an urban centre, is unique in Canada and perhaps in North America. Since both herons and, to a lesser extent, osprey are sensitive to human disturbance, the islands act as a natural sanctuary for them.

The most prominent mammal on McNabs Island is the white-tailed deer. The total population is small, likely about 10 to 15 animals. Numbers were larger in the recent past but have been reduced by coyotes, a recent arrival to the island. Others species of terrestrial mammals reported on McNabs Island include the masked shrew, snowshow hare, red squirrel, meadow vole, muskrat, meadow jumping mouse, red fox, raccoon, and river otter. Moose, bobcat, and black bear have been reported on McNabs Island but are not long-term residents of the island. Two species of bats (little brown bat and northern long-eared bat) are found on McNabs Island.

Reptiles include the maritime garter snake, eastern smooth green snake, and northern redbelly snake. Amphibians include the eastern American toad, northern spring peeper, and eastern redback salamander.

Like McNabs Island, the most prominent mammal on Lawlor Island is the white-tailed deer, with an estimated population of about 10 to12 animals. The density of white-tailed deer on Lawlor

Island is currently much higher than McNabs Island, suggesting that Lawlor Island may be acting as a temporary sanctuary against predation by coyotes on McNabs Island. Several other small mammals (red squirrel, meadow vole, and masked shrew), at least one reptile (maritime garter snake), and at least two amphibians (eastern American toad and eastern redback salamander) are also found on the island.

Cultural Heritage

The Province is committed to protecting and preserving cultural values that are significant to our understanding of Nova Scotia and the park. McNabs and Lawlor Islands are rich in cultural heritage values, which include archaeological sites and historic structures and features. They require protection for interpretive, educational, and research purposes.

Important cultural features that are still visible on McNabs Island include a Mi'kmaq shell midden, the foundations of several houses built by early settlers, a cemetery for some of the island's earliest residents, remains of a turn-of-the-century picnic ground and a soda pop factory, and remnants of a once-extensive Victorian garden. Numerous military fortifications can be found, including Fort McNab National Historic Site of Canada, Fort Ives, Fort Hugonin, and Strawberry Battery. Other features, such as the original McNab house, Sherbrooke Tower, the main burial site of cholera victims from the *SS England*, and the gibbets where the bodies of executed sailors were displayed, have long since disappeared from sight, but remain as archaeological features.

The most prominent cultural features visible on Lawlor Island are the ruins of the quarantine hospital, which helped protect Halifax and Dartmouth against outbreaks of potentially deadly disease from the mid-19th century to the early 20th century.

A wide variety of materials, including maps, military plans, paintings and sketches, photographs, written accounts, and artifacts, form part of collections maintained by agencies such as the Public Archives of Nova Scotia and Parks Canada, as well as a number of private collections. These materials provide invaluable information from which to interpret the historic significance of McNabs and Lawlor islands. The careful protection and controlled public use of these values is fundamental to the management of McNabs and Lawlor Islands as parkland.

Outdoor Recreation and Aesthetics

For many years McNabs Island and, to a lesser extent, Lawlor Island have provided a welcome respite for Halifax-Dartmouth area residents and visitors who wanted to enjoy a quiet, natural area nearby. The islands' natural environments and existing system of old trails and numerous viewpoints have provided a welcome setting for a wide variety of outdoor pursuits, and their green, forest-covered slopes are an attractive visual contrast to the surrounding urban environment.

Historically, McNabs Island has played a major role in providing recreational opportunities for Halifax and Dartmouth residents. In the latter part of the 19th century and early 20th century, several pleasure grounds were located on the island. It was not uncommon for 4,000 to 6,000 people to attend some of the major outings on the island during this period. It was here, that the Bill Lynch Midway Show, one of the largest carnivals in Atlantic Canada, got its start.

In 1991 an estimated 30,000 to 35,000 people visited McNabs Island. By 2001, the number of visitors was approximately 15,000 to 20,000. The sharp decline is due in part to the demise of the McNabs Island Ferry Company, which, in addition to being one of the island's biggest promoters, operated both the largest passenger ferry service to the island between 1980 and 1992 and the McNabs Island Tea Garden. Visitation to Lawlor Island is minimal.

The outdoor recreational and aesthetic values of McNabs Island are provincially important and also contribute significantly in meeting demands for outdoor recreation in the Halifax-Dartmouth metropolitan area. As an island it represents a unique recreational and open space opportunity within metropolitan Halifax-Dartmouth. Maugher Beach and Wreck Cove Beach on McNabs Island are focal points for intensive warm weather recreation activities such as sunbathing and picnicking. Completion of a proposed system of sewage treatment plants could significantly improve water quality in Halifax Harbour and result in increased demand for access to the harbour for aquatic activities.

Sailing and boating to McNabs and Lawlor Islands are already popular and are expected to increase as a wider range of recreation and services are offered on McNabs Island. Protection of the natural qualities of the islands, together with the provision of facilities, would enhance the quality of sailing and pleasure boating in the Halifax-Dartmouth metropolitan area.

The presence on Lawlor Island of large numbers of nesting blue heron and osprey which are sensitive to human disturbance, and the current lack of docking facilities and basic facilities and services will mean that recreational use of Lawlor Island will not be encouraged.

Interpretive Opportunities

McNabs and Lawlor Islands provide a wealth of opportunities to interpret their rich natural and cultural heritage values. A number of potential interpretive themes have been identified, including natural and cultural heritage, terrestrial habitats, forest succession, marsh ecology, introduced species, coastal processes, wildlife, and marine ecology. For many of the potential themes, extensive written and visual materials are available from a variety of sources.

Each of these themes, and others that may be identified, should be presented in a manner that reflects the park goals and objectives. Key messages should include heritage preservation and conservation, the park's significant natural heritage values and processes, its important historical features and events, and park management issues. Interpretation should be managed as an integral part of the park experience rather than as a distinct activity. In addition, interpretive programming should be coordinated with Parks Canada to avoid duplication and, where feasible and practical, to encourage co-operation.

For many park visitors, pamphlets and interpretive panels could be used to provide basic interpretive information. For others, particularly school groups, interpretive programs could be prepared to provide a more structured learning process both on and off the islands. An outdoor education facility could provide additional learning opportunities and teaching resources.

Much of the cultural heritage values of McNabs Island, including several military fortifications, former pleasure grounds, the Hugonin-Perrin estate, and sites of early settlers, are located on the island's western side and easily accessible from a network of trails. Opportunities to interpret terrestrial habitats and forest succession may be found at a number of locations around the island.

Salt marshes at Maugher Beach, Finlay Cove, and Wreck Cove provide opportunities to study and appreciate this habitat. The Hugonin-Perrin estate provides an excellent opportunity to study introduced species. The old English garden, for example, includes a number of exotic and non-indigenous plant species. The recent introduction of the brown spruce long-horn beetle to McNabs and Lawlor islands, and its short- and long-term impact on forest ecosystems, would also be an excellent topic for interpretation.

There are a number of locations on McNabs Island where the full cycle of coastal processes – erosion, transport, and deposition – can be interpreted. The southern part of the island, and the drumlin at Strawberry Battery in particular, is being extensively eroded. This material is being transported by wave action and water currents northward to Maugher Beach where first the cobble and then the finer materials are deposited. Along the extensive sand beach that has developed at Maugher Beach is a developing dune system.

The park's setting as islands in the midst of Halifax Harbour also provides opportunities to learn about a range of marine ecology subjects. Marine life and the effects of harbour pollution on aquatic and terrestrial habitats are examples of topics that could be incorporated into interpretive programming.

Due to the significant numbers of nesting great blue heron and osprey on Lawlor Island and their sensitivity to human disturbance, the lack of public docking and access points, and a desire to limit public use of the island, interpretation of the natural and cultural heritage values on Lawlor Island will not occur on the island itself. Instead, interpretation information will be provided on McNabs Island, at McCormacks Beach Provincial Park in Eastern Passage and key mainland departure points for island ferries.

5.0 LEGISLATIVE AND POLICY FRAMEWORK

This management plan is a long-range vision for McNabs and Lawlor Islands Provincial Park and as such defines the basic management philosophy that will guide decisions regarding the preservation, development, use, and management of the park. To that end, it establishes management objectives and the means and strategies that will be implemented to achieve them. The plan also outlines why certain visitor activities and park facilities and services are recommended, where they should occur, and how park values will be maintained or enhanced. In addition, the plan will help ensure that future park development and management will complement Parks Canada's objectives for Fort McNab National Historic Site of Canada. Opportunities for partnerships with other levels of government, organizations, or individuals are also identified.

The management plan is based on the Department's legislative mandate under the Provincial Parks Act, its Provincial Parks Policy, the Federal - Provincial Land Use Strategy for McNabs and Lawlor Islands, and municipal planning requirements, together with the park's heritage and outdoor recreation values. In addition, the need to complement Parks Canada's future plans for Fort McNab National Historic Site of Canada is recognized. The plan also includes actions required to ensure that protection of the islands' heritage values remains the overriding management focus. The term heritage values, as used throughout this document, encompasses both cultural heritage and natural environments.

Provincial Parks Act

The Provincial Parks Act stipulates that "all provincial parks are dedicated in perpetuity for the benefit and enjoyment of present and future generations of Nova Scotians." To this end, the purpose of the Act is to preserve important elements of Nova Scotia's natural and cultural heritage; provide a range of opportunities for outdoor recreation and heritage appreciation; enable residents and out-of-province visitors to discover, experience, and enjoy Nova Scotia's distinctive outdoor recreational and heritage values; and to assemble and maintain, within a system of provincial parks and park reserves, a land base adequate to meet present and future needs of Nova Scotians for the protection of heritage values and outdoor recreation opportunities.

The park management plan will achieve the objectives of the Provincial Parks Act through a number of initiatives. The plan will place an over-riding emphasis on the protection of the islands' significant natural and cultural heritage values. The plan also encourages the development of a range of outdoor recreational and nature-based educational opportunities that are compatible with protection objectives. Through partnerships with other government agencies and non-governmental organizations, the plan envisions McNabs Island as a regionally and provincially significant attraction for both local residents and out-of-province visitors. Formal designation of the islands under the Provincial Parks Act will help meet the present and future needs of Nova Scotians and visitors alike for heritage protection and outdoor recreation.

Provincial Parks Policy

The Parks Policy (DNR, 1988) was adopted after extensive public consultation and provides guidelines and mechanisms that will ensure the continued maintenance, enhancement, and expansion of Nova Scotia's provincial parks system. It also ensures that important heritage sites, beaches, trails, and waterways will be recognized, preserved, and maintained.

The Policy provides for facilities and services that better meet the needs of park visitors, improved attractions for local residents and tourists, park opportunities and services that recognize the needs of senior citizens and the disabled, and the protection and interpretation of significant natural sites and heritage values.

This management plan complements the Park Policy by placing an emphasis on the protection of heritage features and values while providing for a range of compatible outdoor recreation and heritage appreciation opportunities. The plan proposes that limited facilities and services be provided on McNabs Island through partnerships with interested parties. These facilities and services will accommodate visitors' basic needs while providing opportunities for them to understand, appreciate, and enjoy the islands' heritage values.

Federal - Provincial Land Use Strategy

A Land Use Strategy for McNabs and Lawlor Islands (Parks Canada and Nova Scotia Department of Natural Resources, 1998) was adopted by the federal and provincial governments following extensive public consultations. The Strategy provides future policy and planning direction with respect to the park, rather than land use allocations, which the name may suggest. In particular, the Strategy establishes several fundamental principles for the long-term management of McNabs and Lawlor islands as parkland:

- The Department of Natural Resources and Parks Canada are committed to the formal designation of McNabs and Lawlor islands as parkland and the management of the islands' heritage resources in a manner that will ensure their long-term ecological and commemorative value.

- Nova Scotia Crown lands on the islands will be managed for provincial park purposes.

- Parks Canada will retain ownership and management control of lands associated with Fort McNab National Historic Site of Canada.

- The Department of Natural Resources and Parks Canada will work co-operatively, and with other potential partners, in the planning, development, management, and administration of the islands.

- Acquisition of the balance of private lands on McNabs Island is a high priority.

- Extension of the provincial park boundary to include waters adjacent to the islands will be examined to determine its feasibility and implications. The purpose of any such boundary extension would be specifically to enable the regulation and control of recreational use in immediately adjacent waters.

- The primary management objectives for McNabs and Lawlor Islands Provincial Park will include protection and maintenance of the islands' heritage values, development of interpretive and outdoor education opportunities, provision of opportunities for compatible forms of outdoor recreation and nature tourism, and provision of basic visitor services.

- Lawlor Island will be afforded special protection status within the parks program as a sanctuary for wildlife such as heron and osprey.

- McNabs and Lawlor Islands Provincial Park will be classed as a Natural Environment Park, and its lands will be zoned to reflect an appropriate balance between the protection of heritage values and recreational development and use.

- While the Department of Natural Resources and Parks Canada will maintain a strong presence in the ongoing management and operation of their respective areas of responsibility, a range of partnership initiatives will be considered as long as they are consistent with the objectives of maintaining the islands' natural and cultural heritage values.

- Improved docking and mooring facilities on McNabs Island will be provided when there is a management regime in place and a commitment to provide adequate facilities and services for higher visitation levels.

- Appropriate facilities and services will be provided, with most concentrated in the west central portion of McNabs Island.

- The level of facilities and services depend on the availability of partners willing to participate in their planning, design, development, and operation.

- All proposals for partnership agreements will be evaluated to ensure consistency with the land use strategy.

This management plan has been developed consistent with these principles.

Municipal Land Use Policy and Zoning

McNabs and Lawlor islands fall within the Eastern Passage/Cow Bay Plan Area of Halifax Regional Municipality. The Municipal Planning Strategy (MPS) for this area was adopted by the former Municipality of the County of Halifax in October 1992 and continues in force under the amalgamated region. Major amendments were made to the MPS in 1997and 1998, but these did not affect the two islands. The policies of the MPS are implemented through the Land Use By-law (LUB) for the Area.

Both islands fall under a Special Area Designation in the MPS, on the basis of their environmental and historical significance and the provision of a focus to local communities and areas beyond. Policy SA-2 of the MPS calls for a provincial park zone throughout the islands, supporting recreational and park uses.

In addition, Policy SA-4 of the MPS allows Halifax Regional Council to consider permitting commercial uses by development agreement on McNabs, Lawlor, and Devils islands, provided that these are intended primarily to serve park users, highlight the history and character of the park, and are not of themselves a primary attraction. The policy includes requirements to ensure sensitivity in exterior finish, style, signage, building size, refuse handling, and environmental disruption during and after construction. Because most of the property on McNabs Island belongs to the Province, which is not subject to municipal regulations, Policy SA-5 enjoins Council to request that the development agreement provisions be written into any lease entered between the Province and a private business owner. In 1985, a development agreement was signed for the former Tea Room, and this agreement remains in effect.

Policy SA-3 is of particular interest, enjoining Council "to request that, in making decisions on the future development of McNabs Island as a provincial park, the provincial government have regard to the policies of this strategy relating to the development of the community of Eastern Passage and place an emphasis upon public consultation in consideration of any access which is to be provided to the park site. Further, Council shall encourage the provincial government to work toward a resolution of ownership, development and maintenance of the park, including provisions for municipal and regional representation in all matters."

The Land Use By-law zones both McNabs and Lawlor islands as P-3 (Regional Park), which limits development to recreation uses, conservation related uses, public and private parks and playgrounds, and existing dwellings. Siting requirements from the Community Facility Zone or Mobile Dwelling Zone are applied as appropriate to the use.

This management plan is consistent with the intent of the MPS and LUB.

Fort McNab National Historic Site of Canada

Fort McNab National Historic Site of Canada is the responsibility of the federal government and will be managed by Parks Canada. The Historic Sites and Monument Board of Canada determined in 1965 that Fort McNab was of national historic significance. In 1996, Parks Canada completed a Commemorative Integrity Statement for Fort McNab National Historic Site of Canada. It stated that Fort McNab was of national historic significance "because of its role as part of the Halifax Defence System in protecting one of the principal naval stations of the British Empire and of Canada between the 1880s and 1940s; and for its examples of defence technology and ordnance." Based on direction provided in the 1965 recommendation of the Historic Sites and Monuments Board, this statement was intended to ensure the site's integrity "for the benefit, education and enjoyment of this and future generations in a manner that respects the significance and irreplaceable legacy represented by these places and their associated resources."

This management plan respects the intent of the Historic Sites and Monument Board's recommendations regarding Fort McNab National Historic Site of Canada. Management of McNabs and Lawlor Islands Provincial Park will be complementary to those objectives.

6.0 PARK MANAGEMENT PLAN

The park management plan provides a framework for the conservation of broad park values, the protection and preservation of significant and sensitive heritage features, the development of appropriate recreational and outdoor educational facilities, the provision of visitor services programs, and the operation and maintenance of park facilities.

Opportunities and issues addressed by the park management plan incorporate a review of background reports, field work, consultations with the McNabs and Lawlor Islands Provincial Park Advisory Committee, and comments received during several public information sessions.

Park Objectives

The primary management objectives for McNabs and Lawlor Islands Provincial Park will include protecting the islands' natural and cultural heritage values, including natural processes, ecological functions and selected cultural sites; maintaining or restoring biodiversity; providing opportunities for compatible forms of outdoor recreation; developing interpretive and outdoor education opportunities; and providing sustainable nature tourism activities.

Management of McNabs and Lawlor Islands Provincial Park will incorporate the following as principal objectives

Protection

To protect significant natural and cultural elements and values of McNabs and Lawlor Islands Provincial Park.

Park management will place particular emphasis on protecting both representative and rare ecosystems as well as cultural heritage values, wildlife habitat, and nesting areas that are significant in a local, regional, provincial, or national context. The Province will work closely with Parks Canada to ensure that the commemorative integrity of Fort McNab National Historic Site of Canada is protected.

Outdoor Recreation

To provide a variety of high-quality passive outdoor recreation opportunities on McNabs Island, including hiking, beach activities, and camping.

The park will be managed to provide for high-quality outdoor recreation activities such as hiking, viewing, nature appreciation, photography, kayaking and boating, restricted cycling, and limited camping, where those activities do not compromise the ecological integrity of the islands' natural values.

Heritage Appreciation

To provide opportunities for exploration, education, and appreciation of the park's heritage values through interpretive, information, and education programs.

Heritage appreciation programs will emphasize significant natural and cultural heritage features and themes relating to conservation, geology and landscape development, flora, fauna, marine ecology and human settlement and use. The Province will work closely with Parks Canada to coordinate outdoor education and interpretation efforts where practical and feasible.

Tourism

To provide Nova Scotians and out-of-province visitors with opportunities to discover, experience, and enjoy McNabs and Lawlor Islands Provincial Park.

The park will be managed to serve both destination and stop-over visitors and also to complement and enhance regional tourism infrastructure, opportunities, and strategies, in particular those that emphasize natural and cultural heritage themes. The Province will work closely with stakeholders to coordinate and package the appropriate marketing, presentation, and interpretation of McNabs and Lawlor Islands Provincial Park with similar efforts for Fort McNab and Georges Island National Historic Sites of Canada and other public and private tourism attractions.

Facilities and Services

To ensure the provision of basic visitor services, including wharf access, orientation and information services, camping, picnicking, potable water, washrooms, and change rooms. Appropriate facilities and services will be provided primarily through partnerships involving interested parties where such development is compatible with the park management plan. The Department will also work with commercial ferry operators and appropriate regulatory agencies to ensure that public water transportation to McNabs Island is safe, dependable, and of high quality.

Development of park infrastructure on McNabs Island will utilize a "green approach." As part of the Department of Natural Resources' commitment to maintaining ecological integrity, the planning, design, and construction of park infrastructure will incorporate sustainable development strategies and environmental protection measures. Key aspects of this "green approach" include limitations on new park development, a requirement that new infrastructure support park goals and objectives, re-use of existing structures wherever possible, adoption of sustainable technology, efficient use of resources, and the provision of learning examples of sustainable park development and operation. The provision of new facilities and services will be phased as demands increase and partnership agreements are established.

Park Classification

McNabs and Lawlor Islands Provincial Park, by virtue of its outstanding natural and cultural heritage values, will be managed as a "Natural Environment Park" as defined by the Provincial Parks Act. Natural Environment Parks incorporate representative natural landscapes with outstanding recreational opportunities. This classification emphasizes the protection and conservation of natural and cultural heritage features. Outdoor recreational use and infrastructure development will occur within the context of maintaining the natural character and quality of the environment.

The World Conservation Union (previously known as the International Union for the Conservation of Nature [IUCN]) has developed a six-part system for classifying parks and protected areas, and many countries, including Canada, have adopted this system. The Natural Environment classification assigned to McNabs and Lawlor Islands Provincial Park is consistent with the intent of Class II of the IUCN Protected Areas Management Categories. The Class II designation is used where the primary management intent for a park or protected area is to protect the ecological integrity of ecosystems.

Park Zoning

Park zoning allocates park lands and waters on the basis of the importance attached to their protection as heritage resources and to their capability and suitability for recreational use and associated facility and service development. Zoning defines the degree of protection, conservation, and development that may occur within respective park areas. The Provincial Parks Act establishes three park zones: environmental protection, resource conservation, and recreational development. The first two are protection oriented, while the third allows for more intensive development and use.

Environmental Protection Zones

The environmental protection zone incorporates areas of the park that are highly sensitive or contain significant heritage values that require protection. Interpretive, educational, and scientific activities may be permitted if they do not compromise protection objectives. The development of facilities is not normally permitted, and new trail construction is considered only in exceptional circumstances.

All of Lawlor Island and approximately two-thirds of McNabs Island are designated as Environmental Protection Zones on the basis of the sensitivity of these areas to human disturbance (Figure 3).

Lawlor Island

Lawlor Island is significant for its concentration of nesting osprey and great blue heron. In 1996, at least 14 active great blue heron nests and 10 active osprey nests were found on the island, one of the highest concentrations in an urban setting in North America. Another 84 bird species were reported from Lawlor Island and surrounding waters. In addition, the island supports a small but healthy deer population. The osprey and great blue heron are sensitive to human disturbance,

particularly during nesting periods. In light of the need to protect these important natural heritage values, and in consideration of the current lack of facilities and services on the island and correspondingly low visitation levels, Lawlor Island is zoned Environmental Protection.

Eastern McNabs Island

The eastern portion of McNabs Island, extending from Wreck Cove almost to Indian Point, contains one of the largest, relatively undisturbed regions within the park. This area includes mature and climax forests (sugar maple, yellow birch, beech, and red spruce), several drumlins, osprey nesting sites, the best examples of salt marsh and tidal mud flats within the park, and a Mi'kmaq shell midden. To protect these significant natural and cultural values from conflicting uses, this portion of McNabs Island is zoned Environmental Protection.

McNabs Pond and Dune System

McNabs Pond is one of the richest wildlife habitats on McNabs Island and also provides important wildlife viewing and outdoor education opportunities. The sand dunes and associated vegetation adjacent to Maugher Beach depict evolving coastal processes and are sensitive to disturbance. For these reasons, this area is zoned Environmental Protection.

South End of McNabs Island

The south end of McNabs Island is the most remote part of the island in terms of public accessibility and is therefore less prone to human disturbance. Until recently, there was a fairly significant concentration of nesting great blue heron in this area. Osprey nest in this vicinity as well. It appears that most heron and osprey have relocated to Lawlor Island, perhaps due to human disturbance. This area also includes a small salt marsh adjacent to Big Thrumcap, a former piping plover nesting area, a series of brackish ponds, and examples of active coastal erosion and deposition. To protect these important natural heritage values, and to maintain areas of the island in a natural condition, this portion of McNabs Island is zoned Environmental Protection.

Resource Conservation Zones

The resource conservation zone includes those areas of the park containing significant natural, cultural, and recreational features and landscapes that require a high standard of conservation. This zone also permits activities and land uses that do not conflict with or compromise the inherent natural character and aesthetic qualities of park values. These areas include a number of trails, scenic viewpoints, beaches, fortifications, numerous archaeological sites, and a proposed camping area. Approximately one-quarter of McNabs Island is zoned Resource Conservation.

The resource conservation zone also incorporates and protects scattered sites with unusual flora as well as culturally significant sites and features that do not warrant specific designation within

an environmental protection zone. Planning for any activities or land uses within the resource conservation zone must consider the full range of protection options as the priority.

North End McNabs Island

The north end of McNabs Island includes a range of natural and cultural heritage features. Public use and enjoyment of this area of the island must occur within the context of an over-riding emphasis on protection. Fort Ives, which the Province has committed to protect and maintain, will become a major attraction. The north end of McNabs Island also contains numerous archaeological sites pertaining to early island settlers, as well as several trails. The Tea House, the former Finlay property, and the former Hugonin-Perrin estate, the latter with its wealth of introduced flora, are located in this zone. Fort Hugonin, should it be acquired by the Province, will also become a significant attraction.

Maugher Beach and Strawberry Battery

Maugher Beach is one of the most popular day-use areas on McNabs Island. The beach, and its proximity to Garrison Pier, makes this area a natural attraction for island visitors. Although water quality in McNabs Cove generally meets guidelines for water-contact activities, ongoing public concerns about the quality of water in Halifax Harbour serve to limit public use of the beach to land-based activities. Sewage treatment projects proposed for Halifax Harbour may result in a much cleaner harbour and increased participation in water-contact activities on McNabs Island. The inland portion of the beach is bordered by a sensitive dune system zoned Environmental Protection. The western tip of Maugher Beach, which includes the lighthouse and popular viewing area overlooking the entrance to Halifax Harbour, is owned by the federal government.

Strawberry Battery is situated on the western face of an eroding drumlin overlooking Halifax Harbour. The back side of the drumlin overlooks McNabs Pond. This eroding drumlin offers one of the best opportunities within the park to understand drumlin structure and coastal processes. Strawberry Battery is surrounded on almost all sides by water, so access is difficult. The site also presents a number of public safety concerns that must be addressed.

Lands Near Fort McNab National Historic Site of Canada

Lands surrounding Fort McNab National Historic Site of Canada have been included in the resource conservation zone. These lands include Wreck Cove Beach, a popular recreational beach, and frontage on McNabs Pond.

Recreational Development Zones

A recreational development zone includes an area of a park that is capable of supporting the development of facilities and services associated with outdoor recreation activities and more intensive visitor use. This zone is used to focus park facilities and services, as well as public use, within the most appropriate park areas without compromising protection-oriented values of the park.

Three areas of McNabs Island are zoned Recreation Development. Proposed uses within the recreation development zone are generally limited in scope and include access points, day-use areas with associated facilities and services, an outdoor education centre, and group camping.

To make the best use of existing facilities on the island, and to ensure that any new development does not compromise the island's heritage values, the following special guidelines are established for this zone:

- Wherever practical and feasible, new park developments will use existing facilities and structures.
- Park development will be limited to essential facilities and services and designed to minimize environmental, aesthetic, and visual impacts.

- New park development will be subject to detailed site plans, will consider impacts on natural and cultural values, and will incorporate appropriate buffer zones.

Ives Cove

The Ives Cove recreation development zone contains a concentration of existing facilities, including the Conrad house, Matthew Lynch house, and Jack Lynch house, associated open spaces, and the Department of Natural Resources service wharf. Subject to partnership agreements, it is anticipated that future development in this area will focus on existing facilities and associated areas and that the primary uses will include outdoor education, picnicking, and park administration. The zone also extends southward along the west side of Military Road where a small camping area is proposed.

McNabs Cove

The McNabs Cove recreation development zone includes Garrison Pier and lands adjacent to Maugher Beach. It is anticipated that this will be one of the most heavily used areas on McNabs Island, given that it includes the main public access point to the island and one of the most popular day-use areas. In addition to Garrison Pier, other facilities and services proposed for this zone include an orientation/information kiosk, change rooms, and visitor services centre. To minimize the impact a visitor service centre may have on the island, the centre will be located on the former oil storage tank site which is well buffered from adjoining uses.

Range Pier

The area around Range Pier, including Wreck Cove Beach, is popular for a variety of day-use activities. This zone is intended to include a new docking facility, an orientation / information kiosk, change rooms, and toilets.

Managing for Ecological Integrity

McNabs and Lawlor Islands will be managed as a natural environment park, so protection of the ecological integrity of the islands is of paramount concern. Coastal geomorphic processes, such as erosion and sediment deposition, are integral to the ecological integrity of the islands, as are biologic processes, such as ecological succession. These natural processes underlie the biological diversity that is valued by visitors. Biodiversity is also the fundamental indicator of ecological health. Retaining the ecological integrity of both terrestrial and aquatic ecosystems will be considered in park management decision making.

Ecological integrity must be maintained to ensure the sustainability of both the natural environment and the human uses of the park. In doing so, values such as water quality and the beauty of the landscape will also be preserved. The scientifically based monitoring needed to retain ecological integrity will also provide research opportunities that will enhance the educational and interpretive values of the islands.

Monitoring the impact of visitor use will result in management decisions that permit visitor enjoyment of the islands while maintaining ecological integrity. Such wise decision making will also guide ecological management beyond the park.

Park Development

Park development will provide the facilities and infrastructure necessary to protect the park's values and features, while ensuring public safety and appreciation and enjoyment of the park. Subject to the primacy placed on the protection of park values, and as budgets allow, the Department of Natural Resources and its partners will provide a range of facilities and services on McNabs Island that will foster use and enjoyment of the island in an environmentally sensitive manner (Figure 4). Any infrastructure development must support park goals and objectives. Wherever feasible and practical, all new infrastructure will be guided by a "green" philosophy. No park facilities or services are proposed for Lawlor Island.

The Department will solicit and/or evaluate development proposals that are consistent with the intent of the management plan. In addition, the Department will monitor visitor use of McNabs and Lawlor islands to determine its impact on ecological and cultural heritage values. Proposed projects may be canceled or modified, and visitor uses restricted or prohibited, where it is determined that the impacts are inconsistent with the intent of the park management plan.

This plan includes provision for the following facilities and services on McNabs Island: public access, a visitor service centre, orientation and interpretation information, washrooms and change rooms, food services, picnic facilities, an outdoor education centre, a network of trails for hiking, viewing and interpretation, and group and individual camping facilities. Most facilities and services will be concentrated in the west central portion of the island, close to the main public access point at Garrison Pier and adjacent to Garrison Road. Other development nodes include Ives Cove and Range Pier.

The plan attempts to minimize new development by using existing facilities wherever possible. Proposed new facilities will be located to minimize their impact on the island's natural and

cultural heritage values. In addition, new facilities will be designed and sited to maintain the island's natural landscape and to minimize impacts on viewscapes of the islands from surrounding mainland and marine locations. Implementation of park development projects, as outlined in this plan, will depend largely on the willingness of partners to participate directly with responsible government agencies in the planning, design, development, and operation of park facilities and services.

The primary focus of park development is to provide facilities and services that support day-use activities - hiking, walking, picnicking, beach activities, and heritage appreciation. The provision of limited camping opportunities is also considered.

Wherever possible, development within the park will be consistent with provisions of Halifax Regional Municipality's Municipal Planning Strategy and Land Use By-law. The park management plan supports the intent of the MPS in terms of mitigating environmental and aesthetic impacts of park development, limiting commercial development and, where appropriate, using development agreement provisions in any lease agreement that would facilitate the provision of facilities within the park. The plan also recognizes the long-standing association residents of Eastern Passage have with the islands.

Public Access

Given the park's setting as two islands in Halifax Harbour, public access will be provided primarily by commercial ferry service. The Department will encourage the provision of this service from Halifax, Dartmouth, and Eastern Passage. To ensure safe access to McNabs Island, all public docking facilities on the island will be managed as part of the park, and ferry access will be subject to park policies and regulations. Traditional visitation to McNabs Island by local residents in private vessels will be permitted, subject to park management objectives concerning the protection of park values and features.

Due to the strong emphasis placed on the conservation and protection of park values on Lawlor Island, public access to the island will not be provided at this time. Visitation to the island will be restricted to scientific and other purposes that enhance management of the island through greater understanding of, and appreciation for, the island's natural and cultural heritage values.

Currently two main public access points are used on McNabs Island: Garrison Pier situated in McNabs Cove on the island's western shore and Range Pier at Wreck Cove on the island's eastern shore. In addition, the Department maintains a small, shallow-water service wharf at Ives Cove. Wreck Cove and, to a lesser extent, Timmonds Cove, are also popular moorage locations for boaters.
Major repairs to Garrison Pier were completed in 2002, and further improvements are planned over the long term. Range Pier will be replaced when there is a management regime in place, a commitment to provide adequate facilities and services on the island to accommodate more visitors, and appropriate partnership agreements to provide funding and ongoing management. Responsibility for improved docking and moorage facilities will be shared among key island stakeholders and partners.

This plan proposes that passenger ferry service to McNabs Island be left to the private sector as is currently the practice. No exclusivity or monopoly in the provision of this service is contemplated. Certain provisions will govern the implementation and delivery of this service:

- All commercial ferry operators will require a permit from the Department of Natural Resources to land or pick up passengers on McNabs Island.

- Commercial ferry services may land and pick up visitors only at locations within McNabs and Lawlor Islands Provincial Park that are approved by the Department.

- Commercial ferry operators must comply with all applicable federal and provincial regulations governing the transportation of passengers by boat.

- The Department of Natural Resources will consult with commercial ferry operators on the development and implementation of a park fee collection system. Monies raised through this fee will be used for park improvements.

Parks Canada is currently reviewing options for providing public access to Georges Island National Historic Site of Canada. Subject to the outcome of that review, this management plan may be amended to improve public access to McNabs Island should opportunities arise to partner with Parks Canada or others in the delivery of public access to both Georges Island National Historic Site of Canada and McNabs and Lawlor Islands Provincial Park.

The needs of the physically challenged will be considered in any decisions affecting public access to McNabs and Lawlor Islands Provincial Park.

Garrison Pier

Given its relatively good condition, ability to accommodate larger passenger boats, geographically central location, and proximity to most island facilities, Garrison Pier is the primary public access point to McNabs Island for commercial ferry operators. Such service ideally would be offered from downtown Halifax, Dartmouth, and Eastern Passage. The Department, with financial assistance from Parks Canada and others, completed repairs to the pier in 2002. Due to the height of the pier, and the difficulties encountered by passengers off-loading from smaller craft, installation of a floating dock and ramp is a priority. To prevent congestion, docking of boats at the pier will be permitted only for periods of short duration, sufficient to allow passengers to be dropped off or picked up.

Range Pier

Although the public continues to use Range Pier, the structure is in such poor condition that repairs are no longer feasible or practical. As this is an important access point to McNabs Island, particularly for residents of Eastern Passage and surrounding areas, a suitable docking facility should be established at Wreck Cove in the short term. Replacement of Range Pier will depend in large measure on funding from stakeholders and partners.

A new pier at Wreck Cove would cater primarily to small commercial craft and private vessels. The option of renting overnight docking space at the new pier should be examined to determine public demand as well as financial feasibility.

Due to its hazardous condition, public use of Range Pier will be prohibited. As funding and user demand warrants, Range Pier will be replaced by a new facility.

Ives Cove Pier

Use of the Natural Resources wharf at Ives Cove will continue to be restricted to Department of Natural Resources and other authorized vessels.

Mooring Sites

Wreck Cove and Timmonds Cove have long been popular locations for overnight moorage. As McNabs and Lawlor Islands Provincial Park is developed, increased demand for additional moorage sites is anticipated. As an interim measure, the Department of Natural Resources will initiate discussions with Fisheries and Oceans Canada and other responsible agencies to develop a co-operative arrangement that would ensure that marine waters surrounding the park are managed in a manner consistent with park objectives.

During the initial phases of park development, and until jurisdictional issues are resolved, no mooring buoys will be installed or authorized by the Department of Natural Resources.

Travel on the Islands

McNabs Island is approximately 5 kilometres long and has a maximum width of 1.5 kilometres. Much of the harbour (western) side of the island is accessible by foot and bicycle over a network of trails. Garrison Road, the main travelway on the island, extends from Ives Point at the north tip of the island, to Fort McNab and Wreck Cove towards the southern end. Many of the island's principal sites are accessed by Garrison Road, including Fort Ives, Hugonin Battery, the former Hugonin-Perrin estate, Garrison Pier, Maugher Beach, Fort McNab, and Wreck Cove. The Old Military Road, a branch of Garrison Road, passes by the Conrad and Lynch houses at the northern end of the island. Maugher Beach lighthouse is accessible via the Lighthouse Road.

The primary means of travel on the islands will be by foot. Bicycles will be permitted on McNabs Island for general recreational purposes, but their use will be restricted to designated trails (Old Military, Garrison, and Lighthouse roads).

Motorized vehicles, other than wheelchairs and emergency and maintenance vehicles, will be prohibited from the islands.

The existing network of trails on McNabs Island is felt to be generally adequate in terms of providing access to the island's many attractions. It is proposed that a significant portion of the island remain relatively inaccessible, particularly the east cental side, due to the absence of formal trails. This plan does not support the construction of new trails at this time. Public access will not be provided to Lawlor Island, and public use will be discouraged.

Visitor Services

Based on usage of McNabs Island over the past two decades, it is anticipated that most island visitors will visit on a day-use basis. These visitors use the park for a variety of activities, including hiking, exploring the island's rich natural and cultural features, and beach activities.

The main day-use area will be located close to the island's principal access point at Garrison Pier and the major day-use area associated with Maugher Beach. A visitor services centre, providing information, washrooms and change rooms, food services, and the main interpretive facility, is proposed for this site.

Another day-use area will be located at the north end of the island near Ives Cove and will include Fort Ives, the Conrad house, Matthew and Jack Lynch homes, and a small campground.

Although only limited facilities and services are proposed in association with Wreck Cove, it is noted that this area is also popular, particularly with boaters and others from the Eastern Passage area. As there are environmentally sensitive areas adjacent to both Maugher Beach and Wreck Cove, advisory signs will be posted and other management techniques implemented to protect the ecological integrity of the dunes and salt marshes.

Currently only limited facilities and services are offered on McNabs Island. Some of these have been provided through agreement with the Friends of McNabs Island Society and include maintenance of pit toilets, garbage collection, trails, and several public interpretive programs. No facilities or services are currently offered on Lawlor Island, and none are proposed for the foreseeable future.

The Department will endeavor to provide potable water at a limited number of locations on McNabs Island (Ives Cove and Maugher Beach Recreation Areas) for the benefit of park visitors. Provision of potable water will occur only where the Department is confident that there is a safe and reliable source of water and that public health concerns are addressed.

Maugher Beach Recreation Area

The Maugher Beach day-use area overlooks McNabs Cove and, with its sand beach and view of Halifax Harbour, reinforces the park's island setting. This area includes Garrison Pier, the island's main access point; Maugher Beach, a high quality sand beach and popular island destination; and the area adjacent to the lighthouse. Garrison Road, the main travel route on the island, passes through it.

An information/orientation kiosk is proposed just off the landward end of Garrison Pier. This structure will provide island visitors with information on island attractions, location of facilities and services, and park management messages, including the mandate of McNabs and Lawlor Islands Provincial Park. The kiosk will also serve to shelter departing visitors waiting for the ferry.

A park visitor service building is proposed at the site of the former oil storage tanks on the east side of Garrison Road near Maugher Beach. This facility will be constructed in a manner compatible with the architectural styles of existing residential buildings on the island and will be designed and sited to minimize impacts on the natural appearance of the island's landscape. Earthen berms previously constructed for the oil storage tanks will provide a visual buffer for the visitor centre. The visitor services building will provide visitor information, interpretive messages, washrooms, change rooms, and food services. A small picnic area will be established in association with the facility.

The access point to Maugher Beach will be located at the north end of the beach in order to protect the dune system from visitor impacts. As the beach is not intended to provide intensive water-based recreational use, no lifeguard service will be provided.

In the short term, the World War II-era concrete building at the north end of Maugher Beach will be secured to prevent public access. Over the longer term, a determination will be made as to whether the building should remain and, if so, what function it should have.

The Department, in consultation with the Coast Guard, will continue to provide access to the Maugher Beach lighthouse area.

Ives Cove Recreation Area

Located in the Ives Cove area of McNabs Island are Fort Ives, the Conrad house, the Matthew and Jack Lynch homes, and the Department's service wharf. Consistent with the terms under which the Province accepted ownership of Fort Ives from the federal government, the commemorative integrity of this fortification and other associated buildings will be maintained. Interpretive panels will be installed to describe the site's significant interpretive themes. View planes from the fort may be partially opened through selective removal of vegetation, but will not be restored to a condition that existed during the period Fort Ives was an active military post.

A small picnic area will be established adjacent to Fort Ives and will include potable water, toilets, and limited garbage facilities.

Subject to the establishment of a suitable partnership arrangement, it is proposed that the Conrad and Matthew Lynch homes be used as an outdoor education centre. In conjunction with this role, part of one or both homes may also be used to provide accommodations for small groups. Significant improvements to both buildings may be required to meet building and fire codes. The exterior architectural styles of both buildings will be preserved, and, if practical and feasible, the former stone fireplace on the Lynch House will be restored.

A small camping area will be provided on the west side of the Old Military Road.

Wreck Cove Recreation Area

Wreck Cove, with its high-quality sand beach, sheltered cove, and proximity to the mainland has long been a popular destination for private boaters and other island visitors. A number of private mooring sites in Wreck Cove provide anchorage to small craft. In earlier times, Range Pier also served as a convenient docking site. The pier is now in poor condition and is no longer safe to use. In the short term, toilets, change rooms, an information kiosk, and orientation signage will be provided adjacent to Wreck Cove Beach. Over the longer term, a safe and reliable docking facility will replace Range Pier. In addition, a small number of primitive campsites would be considered inland of the beach if a suitable agreement is reached with a proponent.

It is anticipated that completion of a new docking facility at Wreck Cove would result in increased usage at that site. While it is the intent of this plan to maintain the cove's natural character by providing only basic facilities and services, additional limited development may be considered to accommodate this increased usage.

Camping

There has been a long history of camping on McNabs Island, by both individuals and organized groups. This use generally occurs at a number of traditional sites scattered throughout the island. To minimize potential environmental impacts of unregulated camping and to provide basic facilities and services, the provision of camping opportunities will be pro-actively managed.

While McNabs Island will be primarily a day-use park, a limited number of formal campsites will be established. All camping will require advanced reservation and must occur only at designated campsites. Unregulated camping will not be permitted. Organized group camping, as defined by provincial parks policy, will have preference over individual camping. The provision of camping opportunities will be managed to respond to social and environmental impacts. The Department, in consultation with the Park Advisory Committee, will determine camping sites and rates of usage.

Before a decision is made with respect to the provision of camping at one or more of the following sites, further study and evaluation is required to more precisely determine their suitability.

Military Road Campground

A small campground is proposed just west of the Old Military Road. This site will include an area to accommodate the needs of organized groups and a separate area for individual campers. The campground will offer an open or semi-open area, potable water, a cooking shelter, pit toilets, and recycling and garbage facilities.

Coastal Camping

McNabs Island, by virtue of its relatively natural environment, status as provincial park on Nova Scotia's Atlantic Coast, sheltered coves and inlets, and proximity to Halifax-Dartmouth, offers boaters one of the few opportunities for overnight camping in the metropolitan area. Three sites on the island, Wreck Cove, Timmonds Cove, and the southern end of McNabs Island, were identified as having potential to provide opportunities for limited coastal camping.

Information and Promotion

An information and promotion program will be developed to attract and orient visitors to the park, its facilities, programs, and regulations, as well as to associated regional attractions. A major focus of this program will be the proximity of McNabs and Lawlor Islands Provincial Park to the Halifax metropolitan area and the many opportunities it offers for outdoor education, nature appreciation, and outdoor recreation.

The information program will be provided by the Department of Natural Resources, preferably in partnership with other agencies and stakeholders, and will initially consist of a park brochure, interpretive and orientation signage, and general tourism literature. Efforts will be made to link McNabs and Lawlor Islands Provincial Park with local and regional marketing efforts promoting

the many complementary attractions (e.g., Halifax and Dartmouth waterfronts, several local National Historic Sites of Canada, Pier 21, Halifax Harbour, Fisherman's Cove, Purcells Cove, etc.).

Marketing and communication plans will be prepared to direct the information and promotion program.

Interpretation and Outdoor Education

Three broad interpretive themes have been identified for McNabs and Lawlor Islands Provincial Park, which, in turn, include a number of sub-themes that warrant special emphasis:

Natural History

- landscape development through glaciation and coastal processes
- terrestrial habitats, including the island setting, humans as an agent of change, and introduced species
- island fauna, with a focus on birds
- marine ecology
- ecological processes

Cultural Heritage

- use of the islands by First Nations peoples
- settlement and use by European peoples as conveyed through the McNab family and their tenants
- the prominent role played by McNabs Island in the defence of Halifax Harbour

Parks and Protected Areas

- McNabs and Lawlor Islands as part of an evolving network of parks and protected areas that conserve important elements of Nova Scotia's natural and cultural heritage

These themes help highlight the important role that the islands' evolving landscape, defined in the broadest terms to include physical, social, political, historical, and military elements, has played in the lives of Nova Scotians. The themes, and their many components, also celebrate the islands' underlying characteristic as relatively natural areas that provide opportunities for interpretation and outdoor education programs and opportunities for outdoor recreation.

The presentation of interpretive themes enhances visitor understanding, appreciation, and enjoyment of heritage features, values, and processes and helps foster environmental stewardship. Interpretation motivates learning and nurtures support for the integrity of parks and protected places. It also influences behaviour and is a useful tool for explaining and gaining compliance with park regulations, policies, and management actions.

An interpretive program focusing on self-directed opportunities will be developed to facilitate visitor understanding appreciation and exploration of the park and to support park management practices. The interpretive program will utilize brochures, on-site interpretive panels, interpretive

panels at the visitor service centre, publications, self-guided trails, and special-event programming, such as tours sponsored by the Friends of McNabs Island Society or offered through the Department's Parks are for People program. Interpretation of Lawlor Island will occur off site at locations on McNabs Island and McCormack Beach Provincial Park in Eastern Passage.

In addition, the interpretive program will encourage and develop co-operative interpretation and outdoor education programs with schools, universities, and other organizations such as youth groups, naturalist groups, and historical societies. The interpretive program will feature several levels of field interpretation, as well as the facilities and resources of the proposed visitor services centre at Maugher Beach and the proposed outdoor educational centre at the Conrad and Matthew Lynch homes.
First-level field interpretation will be achieved with interpretive panels at selected sites, while brochures and related publications will provide higher level, self-guiding field interpretation. The proposed outdoor educational centre will provide formal educational programming to a range of user groups.

Sites chosen for environmental education and nature tourism programs will be selected only after it is determined that limited visitation can occur without disturbing the site's heritage values. These sites will be monitored to determine the impact of visitation levels and to identify appropriate mitigative measures if impacts become undesirable.

Special Management Strategies

Special management strategies are required to address specific issues as outlined below.

Cultural Heritage

Long before European contact, aboriginal peoples used the park for hunting and fishing and as a seasonal home. European settlement of McNabs Island dates from at least the 17th century. This legacy of human use includes a range of known and potential cultural sites and features scattered throughout the islands, which should be protected from inappropriate park development and use.

Heritage resource management efforts will focus primarily on the maintenance of Fort Ives and the Conrad, Matthew Lynch, and Jack Lynch homes. While limited management intervention may occur at additional sites as described below, the majority of heritage sites will not be actively managed except for public safety reasons. Regardless of the degree of active management, all heritage sites will be protected by the Provincial Parks Act and provisions of this management plan.

Archaeological Features

The Department of Natural Resources will undertake to secure funding for a comprehensive archaeological survey of the islands in order to identify, and establish the significance of, archaeological sites and their associated management requirements. Before any park facilities

or services are built, an archaeological survey will be undertaken to determine if the proposed development will affect the islands' archaeological features.

The integrity of the shell midden site will be protected. Public access will be restricted to authorized research efforts only.

Fort Ives

Built in 1874, Fort Ives is the oldest of the four remaining fortifications on McNabs Island. The site consists of the fortifications, several period buildings, and two 10 inch (254 mm) rifle muzzle loading (RML) guns dating from the fort's earliest years. The RML guns, sitting on their original carriages, are unique within the former British Empire. These emplacements, with their shields, ordnance, mountings, and supporting buildings, are also a unique feature within the Halifax Defence Complex. In 1996, as a condition of transfer to the Province, Parks Canada undertook extensive stabilization of Fort Ives.

In acquiring ownership of Fort Ives from the federal government, the Province has committed to maintain the site's commemorative integrity. Parks Canada has agreed to provide professional and technical assistance for this. To that end, the Department of Natural Resources will work closely with Parks Canada staff to identify commemorative values associated with Fort Ives and the most appropriate means to ensure their protection.

Public access and use of Fort Ives will be encouraged, and interpretive messages will be presented to foster a greater understanding of, and appreciation for, the role of Fort Ives as a military fortification within a broader system of fortifications protecting Halifax Harbour. Buildings within Fort Ives will remain secured until their future role in commemorating the site's historical importance is determined.

The Department of Natural Resources will pursue designation of this site as a Provincial Heritage Property under the Heritage Properties Act.

Conrad and Matthew Lynch Homes

The Conrad and Matthew Lynch homes have the potential to provide opportunities for visitor services. These homes were acquired by the Province from the Conrad estate in the late 1980s. Built about 1905 by A. J. Davis, and later owned by Ralph and Gladys (Lynch) Conrad, the Conrad house is a large three-storey residence with first- and second-floor balconies on the north and east sides. The two-storey Lynch home was built in 1931 by Matthew Lynch, a former lighthouse keeper on the island. In the absence of a clearly defined role for the Conrad and Matthew Lynch homes, only limited public use has been made of these properties since their acquisition by the Province.

This plan envisages that over the long term the architectural integrity of the Conrad and Matthew Lynch homes will be preserved, and they will be used in a manner compatible with their historic character. One option is to develop the homes into an outdoor education centre, with one or both buildings possibly providing limited accommodations. An assessment will be undertaken to determine the structural integrity of these homes, particularly with respect to their possible use for outdoor education and accommodation purposes.

Interim public use of the Conrad and Lynch homes will not be promoted. However, some limited use may be approved for small groups engaged in activities that are consistent with park objectives. The Department will pursue designation of both homes as either provincial or municipal heritage properties.

Jack Lynch Home

The Jack Lynch home was built in the 1940s and acquired by the Province in 1974. Since the mid-1980s it has been used as a residence by the Department's full-time caretaker on the island. The Jack Lynch home will continue to be used as the caretaker's residence and, in the interim, as the park office.

Hugonin-Perrin Estate

Located off Garrison Road, immediately northeast of Garrison Pier, the Hugonin-Perrin estate dates from the 1850s. This site includes the foundation of the former Hugonin-Perrin home, remnants of a once extensive English garden, open spaces used for a variety of activities over the years, and the former Tea House built in 1985.

Remnants of the English garden include hedges of common barberry and English hawthorn; a variety of introduced tree species, including Scotch elm, linden, horse chestnut, hemlock, white pine, black locust, lilac, Japanese maple, and copper beech; and numerous introduced herbaceous plants. Four large basswood remain along the lower edge of an open field behind the main house foundation. From what was once a continuous row of trees along this same field, two more limes and three horse chestnuts also remain. Although overgrown, the terraced lawn in front of the foundation is clearly visible.

A site plan will be prepared to determine the location and extent of plants, both native and introduced, that once formed part of the landscaped element of the Hugonin-Perrin estate. Limited restoration and stabilization of the Victorian gardens and historic elements of the Hugonin-Perrin estate will be undertaken. This may include planting replacements along rows of trees and hedges, clearing the terraces, and exposing the foundation of the Hugonin-Perrin home.

It is intended that existing open spaces associated with the estate will be maintained. Future uses of this area will include interpretation, outdoor education and picnicking. The Tea House building will be maintained over the long term, and efforts will be undertaken to identify a potential future use.

Hugonin Hill

Hugonin Hill, located immediately behind the Tea House, is one of the highest points on McNabs Island and for many years was used for grazing livestock. When cleared, the hill also provides excellent views northward to Halifax and Dartmouth and westward toward Halifax Harbour. The field is being gradually invaded by white spruce and other species, with much of the open space and scenic vistas lost.

A portion of the historic open space and view planes on Hugonin Hill will be restored. The Department will prepare a vegetation management plan to identify these open spaces and view planes and determine to what extent they will be restored. Based on that plan, trees that now dominate the field will be selectively thinned to maintain and enhance this historic open space and to provide views of Halifax-Dartmouth and Halifax Harbour. The vegetation management plan will also facilitate restoration of a portion of Hugonin Hill with tolerant hardwood trees (sugar maple, yellow birch, beech), which once would have dominated this site.

Construction of a viewing platform near the top of Hugonin Hill may be considered if it is determined such a structure would not interfere with the area's visual aesthetics.

Strawberry Battery

Built during World War II to replace Fort Hugonin, Strawberry Battery included two quick-firing guns and several searchlights to guard the submarine net protecting Halifax Harbour. The battery was decommissioned in 1956, and the armaments and searchlights were removed. Presently, access to the site is difficult. Interim management will discourage visitation to the site.

In the short term, Strawberry Battery will be assessed from a public safety perspective, and necessary measures will be undertaken to address significant concerns. The physical condition of the fortification will also be assessed to determine whether the site contains sufficient commemorative value to warrant stabilization and/or restoration and future presentation to park visitors.

Rifle Range

Two 800-yard (730 metre) rifle ranges were built in 1879 at the southern end of McNabs Island for military use. The remains of one of these is still visible, with its rifle butts and target mechanisms still in place. Further study is required to determine the commemorative value of these butts and mechanisms. In the interim, public visitation will not be encouraged, safety concerns will be addressed, and vegetation will be allowed to regenerate naturally.

Finlay Farm

The Finlay farm is located on the Timmonds Cove Trail, immediately north of the Hugonin-Perrin estate. The site includes the ruins of the Finlay house and the foundations of several other buildings, including the Pure McNab soda pop factory. This area was cleared for farming in the early 1800s and now consists of old pasture regenerating to an early successional forest.

Constructed about 1875, the old Finlay house has completely fallen down and presents a safety hazard as part of it lies on the Timmonds Cove Trail. The remains will be removed, and its foundation, and those of nearby buildings, will be interpreted as part of island's cultural heritage. The old fields will be allowed to revert to forest and will be used to interpret forest succession.

Range Pier

Due to its deteriorated condition, Range Pier presents a number of public safety concerns. In the short term, signs will be posted on the pier to warn about those concerns and to prohibit public use. Replacement of Range Pier with a suitable landing and/or mooring dock for small craft is

seen as a priority. Potential partnerships and funding sources will be pursued to enable construction of a new facility in the short to medium term.

Fort Hugonin

Built in 1899-1900, Fort Hugonin consists of four quick-firing gun emplacements, subterranean magazines, crew shelters, and several associated buildings. In 1940, the fort was taken out of active service, and the guns were transferred to Strawberry Battery. Until 1992 one of the buildings was still in use by the Department of National Defence as a listening post to monitor ship traffic in the harbour. DND has since vacated the site, and the property has been declared surplus to the needs of the federal government.

While the Province has expressed some interest in acquiring this property, in 2002 it is still administered by DND. To that end, the Department of Natural Resources does not currently have a mandate to manage the property. The Department will explore options for acquiring the site on terms that are mutually agreeable to the federal and provincial governments. If it is acquired by the Province, Fort Hugonin will be stabilized and interpreted.

Quarantine Hospital, Lawlor Island

Following the threat of cholera in 1866, the Government of Nova Scotia acquired Lawlor Island for future use as a quarantine station. With the threat of another cholera epidemic in 1871, three quarantine hospitals capable of accommodating at least 500 people were constructed on the island. In 1899 over 2,000 Doukhobor immigrants were quarantined there for a time.

Except during the Second World War, the quarantine station was used sparingly in the 20th century. Today only scattered foundations and a small cemetery remain of this once-busy site.

Interim management of the quarantine station will include undertaking an inventory of historical remnants associated with the station. Access to the site, like access to all of Lawlor Island, will not be encouraged. Further study will be required to determine the long-term management strategy for the quarantine station.

Other Heritage Sites

With over 1,600 years of documented human habitation and use, McNabs and Lawlor islands contain numerous heritage sites. The primary focus of heritage management efforts will be on Fort Ives, the Conrad and Lynch homes, the shell midden, and other priority sites that may be identified. Heritage sites beyond those referred to in the previous section will be assessed and protected from inappropriate development and use under the Provincial Parks Act and provisions of this management plan. It is intended that natural processes will be permitted to reclaim these sites, and no stabilization or other restorative work will be undertaken except for public safety reasons.

Natural Heritage

Despite a long history of human development and use, and their proximity to the Halifax-Dartmouth metropolitan area, McNabs and Lawlor islands still contain extensive natural areas, which support a variety of natural heritage values. It is the intent of this plan to maintain and, where possible, restore these values, which include flora, fauna, and marine environments, as well as the ecological processes they support.

Fauna

Given the importance of McNabs and Lawlor Islands Provincial Park for both migratory and breeding birds, as well as for other wildlife species, the integrity of the park's existing natural habitats will be maintained or, where possible, restored.

The status of nesting osprey and great blue heron on McNabs and Lawlor islands will be monitored by the Department. Public access to Lawlor Island, where the osprey and heron are most heavily concentrated, will be prohibited.

Piping plover, an endangered species, were reported on McNabs Island in the late 1980s, and the island provides suitable habitat for these birds. The Department will monitor the islands to determine if nesting is occurring, and conservation measures will be put in place as needed.

In keeping with the intent of designating McNabs and Lawlor Island as a provincial park, hunting will be prohibited on both islands.

Flora

The Department of Natural Resources, Parks and Recreation Division, has recently adopted guidelines for the management of vegetation in provincial parks. These guidelines will be applied to McNabs and Lawlor Islands Provincial Park.

The guidelines provide the following general direction to park managers:

- Vegetation management must be consistent with park goals and objectives.
- Within the environmental protection and resource conservation zones, a non-intervention approach will be adopted so that evolutionary natural processes will be maintained. Within trail corridors, vegetation will be managed for access and safety.
- Within the recreation development zone, vegetation management that is consistent with park goals and objectives may be undertaken to allow for the development of park facilities and services, associated open space areas, and public safety. If required, new plantings of trees and shrubs will use only native species.
- Non-native insect and disease infestations, and invasive non-native vegetation, may require pro-active intervention. Any intervention will be directed as narrowly as possible to the specific problem and implemented only after appropriate consultation.

- Infestations of native insects will be allowed to progress undisturbed in the park, except as described below.

In addition, a monitoring program will be established to assess the impacts of park development and use on the islands' vegetation.

It is difficult to develop and implement guidelines that consider all circumstances. To that end, the following allowances have been made for McNabs and Lawlor Islands Provincial Park:

- The approach to vegetation management must recognize that both islands contain native and introduced vegetation. The intent of this plan is to encourage restoration of native vegetation. Exception will be made for ceratin managed cultural sites such as Fort Ives, the Conrad and Lynch properties, and the Hugonin-Perrin estate. The management of exotic or invasive species is addressed in further detail in the following section.

- Selective thinning of trees on the north- and west-facing slopes of Hugonin Hill (resource conservation zone) will be initiated to maintain limited viewscapes of Halifax-Dartmouth and Halifax Harbour.

- Tolerant hardwood trees (sugar maple, yellow birch, beech) will be re-established on a portion of Hugonin Hill.

- Selective thinning of trees and vegetation on the north- and west-facing slopes of Fort Ives (resource conservation zone) may be undertaken to provide limited viewscapes of Halifax - Dartmouth and Halifax Harbour.

- Existing exotic vegetation associated with the former Hugonin-Perrin estate (resource conservation zone) will be maintained. New plantings of exotic vegetation will require a vegetation management plan that considers, among other issues, the potential for escape and invasion.

- A vegetation management plan will be completed in advance for deviations to these vegetation guidelines.

Exotic or Invasive Species

Exotic or invasive species include both flora and fauna. Some exotic and most invasive species are of concern because of their potentially significant negative impacts on native species. Active management of exotic or invasive species may therefore be required to conserve native populations. Examples of exotic or invasive species include the brown spruce long-horn beetle and Japanese knotweed.

In 2000, the brown spruce long-horn beetle was found on McNabs and Lawlor islands. This non-native insect can be destructive to spruce trees and, if left uncontrolled, could cause significant damage to the islands' softwood forests. An eradication program managed by the Canadian Food Inspection Agency and the Department of Natural Resources has been implemented and is consistent with the park management plan.

Japanese knotweed was originally brought to McNabs and Lawlor islands by early settlers. Several large patches are now found on McNabs Island, including one on the Timmonds Cove Trail near the Finlay house and another along Garrison Road, between Wambolt Trail and Fort McNab. If left undisturbed, these patches will continue to expand at the expense of native vegetation. As a result, vegetation management will encourage the removal of Japanese knotweed.

Marine Environment

Situated near the mouth of Halifax Harbour, McNabs and Lawlor islands are greatly influenced by the surrounding coastal marine environment. These waters have important environmental, outdoor recreational, aesthetic, and educational values, which contribute to the visitor experience. Of particular significance are several sites within the islands' inter-tidal zone. These include the algae- covered bedrock outcrop near Maugher Beach and salt marshes at Thrumcap, Wreck Cove and Finlay Cove. The Department of Natural Resources will work with responsible agencies and other stakeholders to ensure that management of adjacent waters is consistent with park objectives.

Managing Visitor Impacts

McNabs and Lawlor Islands Provincial Park is located in the midst of Atlantic Canada's largest metropolitan area. The future development and management of the islands as a provincial park will result in increased visitation, which will, in turn, place greater pressures on the islands' heritage values and park infrastructure. In addition, there is potential for increased conflicts between island visitors.

Though appropriate legislation and the provisions of this management plan, the Department of Natural Resources will manage visitor use at McNabs and Lawlor Islands Provincial Park to ensure protection of the islands' heritage values and to enhance visitor experiences. Classification of the islands as a natural environment park clearly establishes that park management priorities will emphasize the protection of natural and cultural heritage values. Establishment of a park zoning regime which designates approximately 90 per cent of the park in either environmental protection or resource conservation zones, is another indication of the Department's commitment to manage visitor use to minimize the impacts on park values.

The Department will undertake a number of other measures to minimize visitor impacts. Baseline data on visitor impacts will be collected and evaluated to establish carrying capacities and other visitor-management strategies. Management objectives will be established for specific areas of the park that will describe as precisely as possible the experiences to be offered visitors and the appropriate ecological and social conditions to accompany each experience. The impact of visitors on the social, physical, and ecological well-being of the park will be monitored and appropriate management techniques implemented to resolve undesirable consequences.

As part of ongoing efforts to manage visitor impacts, the Department will provide information to visitors through park literature, interpretive signage, and park programs on management objectives and appropriate (and inappropriate) activities and behaviours. The Department, in conjunction with other agencies, partners, and stakeholders, will also enforce applicable legislation, regulations, policies, and guidelines to ensure that heritage values are protected and to prevent the occurrence of undesirable activities and user conflicts.

Park Operations

Primary responsibility for the operational aspects of McNabs and Lawlor Islands Provincial Park will rest with the Department of Natural Resources' Regional Services Branch, Waverley office. This responsibility may vary, depending on the terms and conditions of any agreements entered into between the Department and its partners.

Park Season

The public will be invited to use McNabs and Lawlor Islands Provincial Park year-round, although facilities and services will normally be provided only between the long weekend in May and the long weekend in October, inclusive, when the park is formally open. The campground may operate during that period, or at such times as may be agreed to by Natural Resources and the campground operator.

Staffing

Implementation of the management plan will require departmental staff resources for both operational and ongoing planning requirements. The extent of these resources will depend to a large degree on the nature of future agreements between the Department and its partners. At a minimum, the present full-time caretaker as well as enforcement personnel will be required. The potential for additional staffing resources from partnerships and volunteers will be explored.

Park Boundary

McNabs and Lawlor Islands Provincial Park is 432 hectares in size. The park boundary encompasses all provincial Crown land on McNabs and Lawlor islands, consisting of 374 hectares on the former and 58 hectares on the latter. An additional 28 hectares on McNabs Island and 0.29 hectares on Lawlor Island are not included within the park designation. The majority of these lands are owned by the federal government and include Fort McNab National Historic Site of Canada (14 hectares), Hugonin Battery (8 hectares), and the Maugher Beach lighthouse (2 hectares). Three hectares of private land also remain on McNabs Island. Revisions to the park boundary are proposed over the long term to enhance management of the islands' heritage values.

Park Boundary Offshore

As islands in the midst of Atlantic Canada's largest metropolitan areas, and one of Eastern Canada's busiest seaports, activities in the waters immediately surrounding McNabs and Lawlor

islands may affect the Province's ability to protect park values and ensure high-quality park visitor experiences. To facilitate the protection of these park values while ensuring that island visitors enjoy a quality park experience, it would be desirable to extend the park boundary offshore beyond the ordinary high-water mark. This would provide for the protection of much of the park's intertidal zone and enable park regulations to be applied within the coastal use area associated with the park.

Jurisdiction for the waters surrounding McNabs and Lawlor Islands currently rests with the federal government through Fisheries and Oceans Canada. The Halifax Port Authority also has some responsibility for waters surrounding the northern portion of McNabs Island. The Department of Natural Resources will work with the federal government and the port authority to investigate the extension of park boundaries beyond ordinary high-water mark. As an interim measure, the Department will work to have its concerns addressed through the existing regulatory powers of Fisheries and Oceans and/or the Halifax Port Authority.

Land Acquisition

Several small privately owned properties remain on McNabs Island. In addition, the Fort Hugonin property has been declared surplus by the Department of National Defence, and other federal properties may also be surplus. The federal government owns the eastern-most tip of Lawlor Island and maintains a navigational aid there.

To ensure that the park's vision and objectives are not compromised by the management of adjacent private lands, the Province should acquire the remaining private properties on McNabs Island as soon as possible. Public ownership of these properties would enhance the Department's ability to protect park values and to provide for effective park development and management options. In addition, subject to suitable terms and conditions, provincial acquisition of the Fort Hugonin site is recommended. The acquisition of other federal properties on McNabs Island should also be explored.

In the interim, or where acquisition may not be possible, the Department will explore options for entering into formal agreements with adjacent landowners, as provided in the Provincial Parks Act, to ensure that adjoining private properties are managed in a manner that is compatible with park management objectives and values.

Public Safety Issues

Public safety at McNabs and Lawlor Islands Provincial Park presents many challenges. The location of the park in Halifax Harbour may delay emergency response. Fortifications and other facilities designed to 19th- and 20th-century military standards create some risk for visitors. Old foundations and wells, inadequate fire suppression measures, rugged terrain, changing weather conditions, and visitor activities (e.g., boating, swimming, hiking, and biking), all must be considered when addressing public safety concerns.

Public safety measures will place an emphasis on accident prevention through the following:

- regular inspection, monitoring, and maintenance of park facilities and sites
- advising visitors of potential risks and hazards
- staff training
- adoption of emergency plans
- coordination of emergency services with other agencies (RCMP, Coast Guard, Halifax Regional Municipality, etc.).

The Department will undertake to ensure that public access and use of the islands are carried out as safely as possible. A hazard assessment and public safety plan will be completed, as well as regular inspections of park facilities. In addition, actions will be initiated with respect to specific public safety concerns.

Emergency Response

The Department of Natural Resources will prepare an emergency response plan.

Fortifications and Other Military Facilities

Fortifications and other military facilities present a number of potential hazards to park visitors. These hazards primarily involve heights and the potential for falls causing injury. The Department will take appropriate action to reduce public safety risks. Measures may include signage, guardrails, construction of barriers, or removal of the risk.

Old Foundations and Abandoned Wells

McNabs and Lawlor islands contain numerous old foundations and abandoned wells, which may present a public safety concern. The Department will undertake to identify all such sites on both islands and develop and implement a plan to ensure that public safety concerns are addressed.

Fire Suppression

All uncontrolled fires will be aggressively fought. There is little or no infrastructure (water supply and distribution system) and limited on-site staff and equipment on McNabs and Lawlor islands for fighting fires. As islands, the park would also be difficult to access for many municipal fire departments. As such, fire suppression measures will rely primarily on the Department's own fire-fighting resources available through local district offices and the Shubenacadie fire control centre.

A park fire suppression plan will be prepared by the Department of Natural Resources and, where possible, will contain measures to include co-operation and coordination from adjacent municipal fire departments and the Department of National Defence.

As part of fire suppression efforts, open fires will be permitted only in designated locations. No open fires will be allowed in camping areas.

Eroding Cliffs

Both islands include a number of steep, eroding cliffs, which may present a public safety hazard. The Department will not develop trails in these areas and, through a variety of methods (brochures, signage, direct public contact, etc.), will discourage public activities from occurring in these areas.

Visitor Activities

While in the park or traveling to and from the mainland, park visitors participate in a variety of activities such as hiking, biking, swimming, or boating. To ensure a high standard of public safety, the Department will maintain park facilities and services to an appropriate standard, provide information on potential risks, and adopt appropriate emergency response plans for injuries.

7.0 PARTNERSHIPS

The Department of Natural Resources is committed to ensuring that the park's natural and cultural heritage values are protected and used wisely. The Department, however, lacks the resources to independently deliver the full range of facilities and services envisaged by this plan. As a result, a partnership approach involving other government agencies, the private sector, and not-for-profit groups will be pursued. To this end, the Department of Natural Resources will consider a wide range of partnership initiatives, subject to their consistency with park management goals and objectives.

The Department has previously maintained a partnership with the Friends of McNabs Island Society for trail upkeep, orientation signage, maintenance of vault toilets and the provision of interpretive programs.

Partnership proposals will be reviewed by the park advisory committee.

8.0 IMPLEMENTATION STRATEGY

Implementation of the plan will reflect the following general phases, with the pace of implementation depending on available resources and partnership agreements. It is recognized that government funding will cover only a portion of the costs of implementing this plan. Outside funding from private, corporate, and not-for-profit groups will be actively pursued. Innovative approaches, such as the creation of an Island Foundation, may be used to spearhead fundraising efforts. The Parks and Recreation Division of the Department of Natural Resources will play a lead role in facilitating implementation of this plan, while other potential partners may play a leadership role in implementing specific projects.

The Park Advisory Committee will continue over the long term to advise the Department about the ongoing planning. management, and operation of McNabs and Lawlor Islands Provincial Park.

Before encouraging visitor increases, mechanisms will be put in place to monitor park visitor impacts on the island's heritage values. This monitoring will be used to help in designing visitor management strategies.

The proposed implementation phasing is designed to provide an operational park that offers a good visitor experience, including basic facilities and services, within three years of the formal designation of the park. Although the plan has a 15-year time frame, it will be reviewed every 5 years. In this way, adjustments can be made should conditions change substantially, or if significant new information becomes available.

Unless otherwise noted, the Department of Natural Resources will assume a lead role in the implementation of the following priority initiatives. By assuming a lead role, Natural Resources does not necessarily accept sole responsibility for the planning, funding, delivery, or ongoing management and operation of a particular initiative. In some cases, the lead role may be primarily focused on seeking potential partners who will ultimately assume responsibility for the delivery of a facility, service, or program.

Following formal adoption of the management plan and the designation of McNabs and Lawlor Islands Provincial Park under the Provincial Parks Act, the Department will seek and/or consider partnerships that will facilitate implementation of this plan.

Implementation - Phase I

Phase I of park development is intended to address key public safety issues, ensure protection of park values, and deliver basic facilities and services on McNabs Island (access, orientation and information, trails, toilets, potable water, etc.). Implementation will depend on availability of resources. Before implementation, all development proposals will be reviewed to ensure that they are consistent with the intent of the management plan. The Department may require an environmental assessment prior to development in order to ensure that projects are appropriate

and can be completed in an environmentally responsible manner. Environmental and other assessments will be conducted as needed to permit the management process to be adaptive to the outcomes of the assessment and ongoing environmental, social, and economic conditions.

1. Establish ecological benchmarks for monitoring park visitor impacts.

2. Identify and mitigate potential public safety hazards (e.g., abandoned wells, Range Pier, Strawberry Battery).

3. Conduct a more detailed assessment of the condition of the Conrad and Matthew Lynch homes with respect to their potential as an outdoor education centre.

4. Develop partnerships to provide a floating landing dock at Garrison Pier.

5. In consultation with commercial ferry boat operators, develop a system to collect a park entrance fee for commercial ferry boat passengers.

6. Ensure that the existing trail system meets acceptable standards.

7. Develop a park interpretive plan, including interpretation of the marine environment.

8. Develop the following park orientation information:
   - a park brochure
   - an orientation kiosk and associated information at Garrison Pier
   - orientation signage at key points on McNabs Island

9. Assess, and where possible, develop a reliable water supply for the Jack Lynch (caretaker's) house, preferably with design capacity to also meet demands of the Conrad and Matthew Lynch homes, the proposed Old Military Road campground, and a public water supply for the Ives Cove Recreation Area.

10. Develop an enforcement policy.

11. Construct a small campground off Old Military Road.

In addition, during this phase a number of ongoing initiatives may commence, including additional studies (i.e., resource inventories) as necessary to better manage park values.

Implementation - Phase II

Phase II of park development is intended to provide a higher level of facilities and services and visitor experiences, with a focus on interpretation, outdoor education, and day-use facilities. Implementation will depend on availability of resources. Additional emphasis will be placed on establishing partnerships for the delivery of Phase II.

1. Develop a marketing and promotional plan.

2. Design, construct and install interpretive panels.

3. Develop interpretive programming (on and off site).

4. Develop an outdoor education centre. (Partner(s) and DNR).

5. Provide change rooms, vault toilets, and opportunities for picnicking near Maugher Beach.

6. Provide picnicking and vault toilets at Fort Ives.

Implementation - Phase III

Phase III of park development focuses on the delivery of a visitor services facility at Maugher Beach, the replacement of Range Pier, and provision of limited camping opportunities. These initiatives will depend on formal partnership agreements and the availability of resources.

1. Construct visitor services facility (food service, orientation, and interpretation) close to Maugher Beach. (Partner(s) and DNR).

2. Replace Range Pier.

3. Assess the suitability of three sites identified as having potential to provide a small number of coastal campsites

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FIGURES

Figure 1 Regional Location Map
Figure 2 Property Ownership
Figure 3 Park Zoning
Figure 4 Development Concept

Figure 1
Regional Location Map

To accompany Draft Park Management Plan,
McNabs and Lawlors Islands Provincial Park,
Nova Scotia Department of Natural Resources
Information Series PKS 2002-1.

Figure 1
Nova Scotia Department of Natural Resources
McNabs and Lawlor Islands Provincial Park

Regional Location Map

Halifax Harbour, Nova Scotia

1 0 1 2 3 4 5

kilometres

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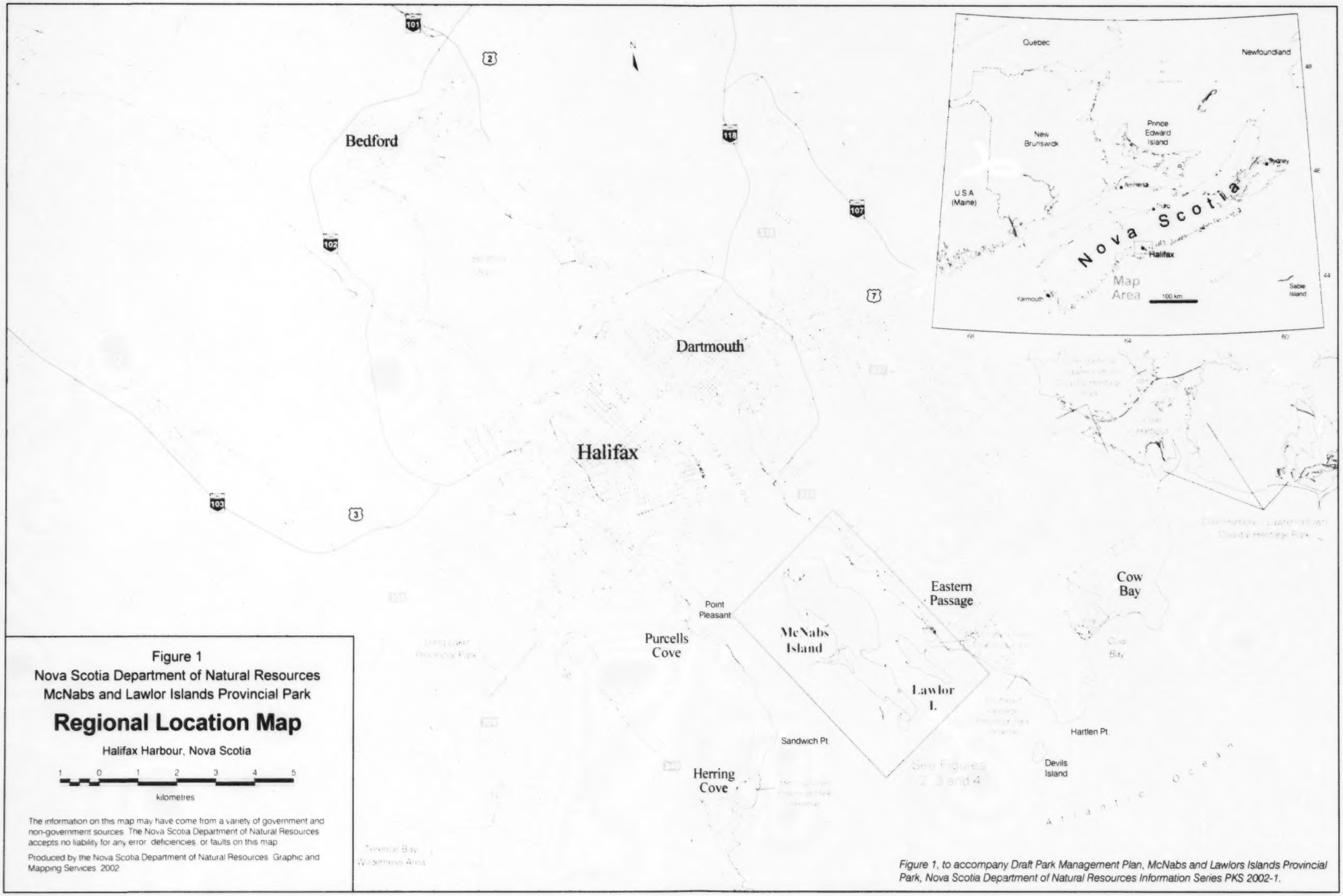

Figure 1, to accompany Draft Park Management Plan, McNabs and Lawlors Islands Provincial Park, Nova Scotia Department of Natural Resources Information Series PKS 2002-1.

Figure 2
Property Ownership

To accompany Draft Park Management Plan,
McNabs and Lawlors Islands Provincial Park,
Nova Scotia Department of Natural Resources
Information Series PKS 2002-1.

Figure 2
Nova Scotia Department of Natural Resources
McNabs and Lawlor Islands Provincial Park

Property Ownership

Halifax Harbour, Nova Scotia

metres 200 0 200 400 600 800 metres

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Eastern Passage
Autoport
Eisner Cove
Baker Point
Indian Point
Pier ruins
Lawlor Island
Farrels Point
Rifle Range Pier ruins
Hugonin Hill
Ives Point
Pier ruins
Old Military Rd
Garrison Rd
Garrison Rd
Fort Ives
Fort Hugonin
Hugonin Point
Garrison Pier
Maugher Beach
Strawberry Battery
Hangmans Beach
Range Hill
Rifle Range Trail
Fort McNab National Historic Site of Canada
Doyles Point
Green Hill
Culliton Point
Big Thrumcap
Little Thrumcap
Little Thrumcap Hook
McNabs Island
Maugher Beach Lighthouse
Halifax Harbour

Legend

- Provincial Park lands
- National Historic Site lands
- Federal Crown land
- Private land

Hydrographic feature
Foreshore flats
Roads
Trails
Contour line

Figure 1, to accompany Draft Park Management Plan, McNabs and Lawlors Islands Provincial Park, Nova Scotia Department of Natural Resources Information Series PKS 2002-1.

Figure 3
Park Zoning

To accompany Draft Park Management Plan,
McNabs and Lawlors Islands Provincial Park,
Nova Scotia Department of Natural Resources
Information Series PKS 2002-1.

Eastern Passage

Eisner Cove

Autoport

Baker Point

Eastern passage

Indian Point

Pier (ruins)

Lawlor Island

Farrels Point

Rifle Range Pier (ruins)

Hugonin Hill

Ives Point

Pier (ruins)

Doyles Point

Green Hill

Old Military Rd

Garrison Rd

Rifle Range Trail

Range Hill

Fort Ives

Garrison Rd

Garrison Pier

Fort McNab National Historic Site of Canada

Culliton Point

Thrumcap Cove

Fort Hugonin

Maugher Beach

Strawberry Battery

Hangmans Beach

Big Thrumcap

Hugonin Point

Little Thrumcap

Little Thrumcap Hook

McNabs Island

Maugher Beach Lighthouse

Halifax Harbour

Legend

- Environmental Protection Zone
- Resource Conservation Zone
- Recreation Development Zone
- National Historic Site lands
- Other lands

Hydrographic feature

Foreshore flats

Roads

Trails

Contour line

Figure 3
Nova Scotia Department of Natural Resources
McNabs and Lawlor Islands Provincial Park

Park Zoning

Halifax Harbour, Nova Scotia

metres 200 0 200 400 600 800 metres

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Figure 1, to accompany Draft Park Management Plan, McNabs and Lawlors Islands Provincial Park, Nova Scotia Department of Natural Resources Information Series PKS 2002-1.

Figure 4
Development Concept

To accompany Draft Park Management Plan,
McNabs and Lawlors Islands Provincial Park,
Nova Scotia Department of Natural Resources
Information Series PKS 2002-1.

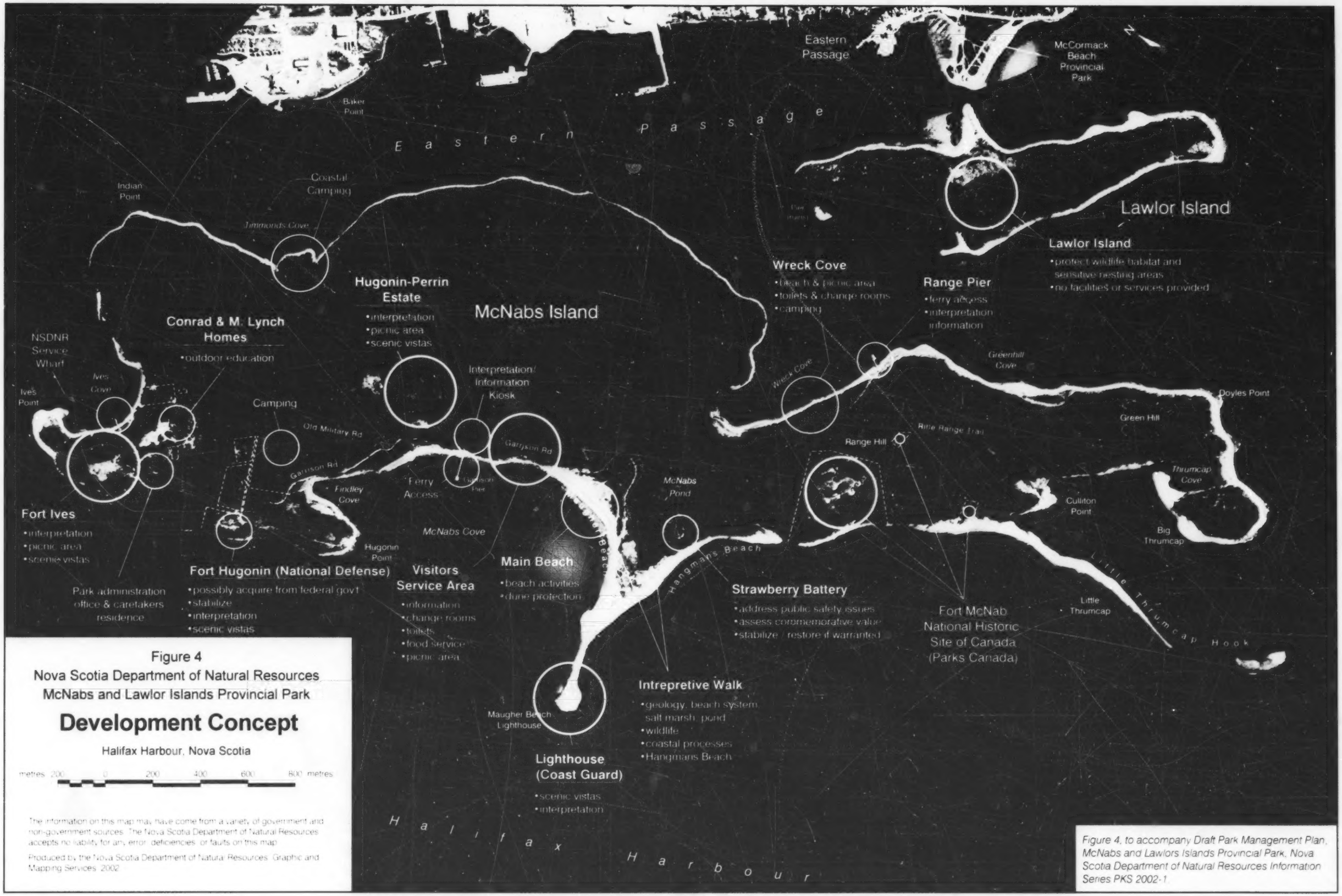

Figure 4
Nova Scotia Department of Natural Resources
McNabs and Lawlor Islands Provincial Park

Development Concept

Halifax Harbour, Nova Scotia

metres 200 0 200 400 600 800 metres

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